

# CHICAGO BEVERAGE SYSTEMS EXPANSION

*Traffic Impact Study*

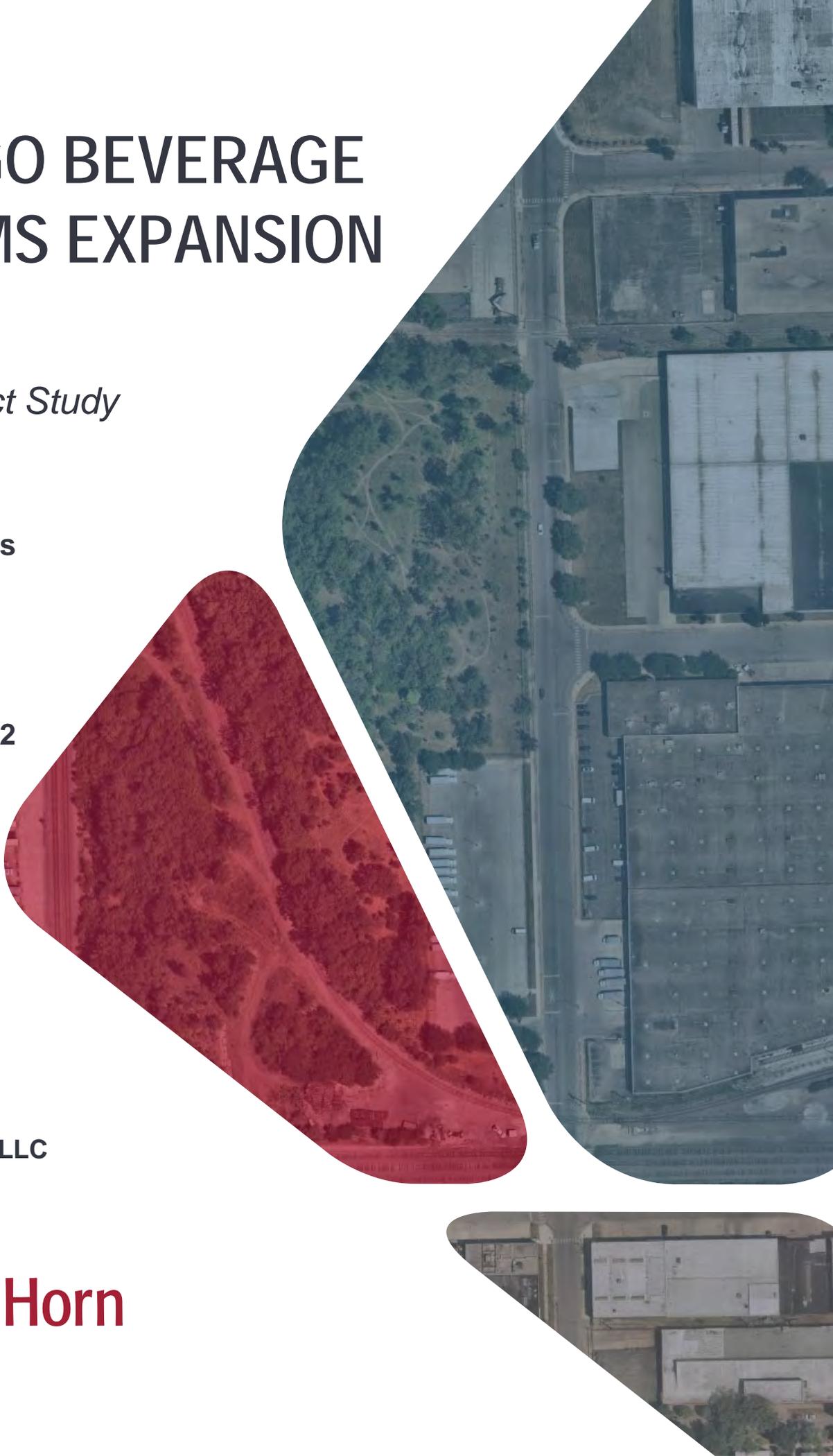
**Chicago, Illinois**

**September 2022**

Prepared for:

**Reyes Holdings, LLC**

**Kimley»»Horn**



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## EXECUTIVE SUMMARY

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by Reyes Holdings to perform a traffic impact study for a proposed expansion of the existing Chicago Beverage Systems facility located at 441 N. Kilbourn Avenue in Chicago, Illinois. The proposed building expansion would total approximately 81,000 square feet of new warehousing space and accommodate increased operations on site. The building expansion, replacing existing green space on the east side of the building, would also accommodate relocation of loading docks from the existing building. The existing truck parking lot on the east portion of the site would be modified and the existing full-access driveway on Ferdinand Street would be converted to exit-only with a new entrance-only driveway proposed on Ferdinand Street to the east. The existing access points on Kilbourn Avenue would remain. The proposed expansion is expected to be completed in 2023.

As part of this study, the existing roadway network was analyzed to determine the current operational conditions at the study intersections. In order to assess the potential impact on the area roadway network, site-generated trips were established and added to future background traffic projections. Traffic conditions were evaluated for Year 2028, which represents a build-year-plus-five-years analysis horizon.

Based on a review of existing and future traffic conditions, the existing study intersections are expected to maintain acceptable capacity levels and accommodate the proposed traffic generation associated with the building expansion without the need for improvements. The existing and proposed access points are expected to operate well with little delay.

Additional details related to the improvements identified above are provided in the *Recommendations & Conclusions* section of this report.

## 1. INTRODUCTION

Kimley-Horn and Associates, Inc. (Kimley-Horn) was retained by Reyes Holdings to perform a traffic impact study for a proposed 81,000 square foot building expansion at the existing Chicago Beverage Systems industrial warehouse at 441 N. Kilbourn Avenue in Chicago, Illinois. The existing warehouse facility is approximately 289,000 square feet and operates as a beverage distribution facility. Existing access is provided to employee parking lots on both the west and east sides of Kilbourn Avenue via three driveways: North Car Access, South Car Access, and West Parking Lot Access, all of which are proposed to remain with the proposed expansion.

The loading docks will be relocated from the existing building to the newly constructed east side of the building. The existing truck parking lot on the east portion of the side will be modified and the existing full-access driveway on Ferdinand Street into the parking lot would be converted to an exit-only driveway while an entrance-only driveway is proposed to the east end of the truck parking lot. An aerial view of the study location and surrounding area roadway network is presented in **Exhibit 1**.

As part of this study, the existing street network was analyzed to determine the current operational conditions at the study intersections. Site trip generation characteristics were established for the proposed expansion and the anticipated growth in traffic was added to projected background traffic volumes in order to assess the site's potential impact on the area roadway network.

This report presents and documents the study methodology, summarizes data collection and development traffic characteristics, highlights the evaluation of traffic conditions on the study intersections and roadways, and identifies recommendations to address operational impacts and integrate the proposed development into the surrounding transportation system.



NORTH  
NOT TO SCALE



## 2. EXISTING CONDITIONS

Kimley-Horn conducted a review of the subject site comprising land uses in the surrounding area, the adjacent street system, current traffic volumes, lane configurations and traffic conditions at nearby intersections, and other key roadway characteristics. This section of the report details information on the existing conditions.

### Area Land Uses & Connectivity

The subject site is located in an industrial corridor in Humboldt Park, approximately 5 miles west of downtown Chicago. The site is surrounded in all directions by a mix of residential, manufacturing, and commercial land uses. A Union Pacific Railroad line runs east-west just south of the site. Interstate 290 is located approximately 1.3 miles south of the site.

Local connectivity is provided to/from the east and west via Chicago Avenue north of the site and Lake Street south of the site. In the north and south directions, connectivity is provided via Cicero Avenue (IL Route 50), located less than one half mile west of the site.

### Existing Roadway Characteristics

The site is primarily served by Kilbourn Avenue, Ferdinand Street, Lake Street, and Chicago Avenue. Information about these roadways is outlined below.

**Kilbourn Avenue** is a north-south roadway that runs along the western border of the site. The Illinois Department of Transportation (IDOT) classifies Kilbourn Avenue as a Local Road. Through the study area, Kilbourn Avenue provides one lane in each direction. At its signalized intersection with Chicago Avenue, Kilbourn Avenue provides a dedicated left-turn lane and dedicated right-turn lane. South of the site, Kilbourn Avenue is a two-way roadway with one travel lane in each direction that transitions from one-way northbound immediately south of its signalized intersection with Lake Street. Kilbourn Avenue is under City of Chicago jurisdiction.

**Lake Street** is an east-west roadway that runs below the elevated CTA Green Line approximately two blocks south of the site. IDOT classifies Lake Street as a major collector. Through the study area, Lake Street provides one travel lane, one bike lane, and one parking lane in each direction. At its signalized intersection with Kilbourn Avenue, Lake Street provides one through lane and one shared through/left-turn lane on the west leg and one through lane and one shared through/right-turn lane on the east leg. Lake Street is under the jurisdiction of the City of Chicago.

**Chicago Avenue** is an east-west roadway located approximately one-half mile north of the site. At its signalized intersection with Kilbourn Avenue, Chicago Avenue provides a shared through/left-turn lane on the east leg and a shared through/right-turn lane on the west leg. Chicago Avenue provides two travel lanes in each direction and on-street parking on the north side of the street. A speed limit of 30 miles per hour (MPH) is posted throughout the study area. Chicago Avenue is under City of Chicago jurisdiction.

**Ferdinand Street** is an east-west roadway that runs along the northern border of the site. Ferdinand Street is classified by IDOT as a local road, providing one travel lane in each direction. At its

intersection with Kilbourn Avenue, Ferdinand Street provides a shared left-turn/right-turn lane with minor-leg stop control. Ferdinand Street is under the jurisdiction of the City of Chicago.

The **North and South Car Access** is composed of a large private driveway, spanning 150 feet along the west side of the building, that functionally acts as two driveways. North Car Access refers to the northern point of entry of the driveway, which provides access to the site parking lot and South Car Access refers to the southern point of entry of the driveway providing access to two employee parking lots and drive-up doors. Both the North and South Car Access points provide one inbound and one outbound lane.

**Parking Lot Access** is a private driveway on the west side of Kilbourn Avenue across from the proposed site and the South Car Access. At its unsignalized intersection with Kilbourn Avenue and South Car Access, this driveway provides one inbound and one outbound lane on the west leg of the intersection under stop sign control.

**Site Access** is a private driveway located on Ferdinand Street approximately 1,000 feet east of Kilbourn Avenue, providing access to the existing truck parking lot on the east side of the site. At its unsignalized intersection with Ferdinand Street, this driveway provides one inbound and one outbound lane under stop sign control.

## Traffic Count Data

Intersection traffic count data was collected in August 2022 at the following locations:

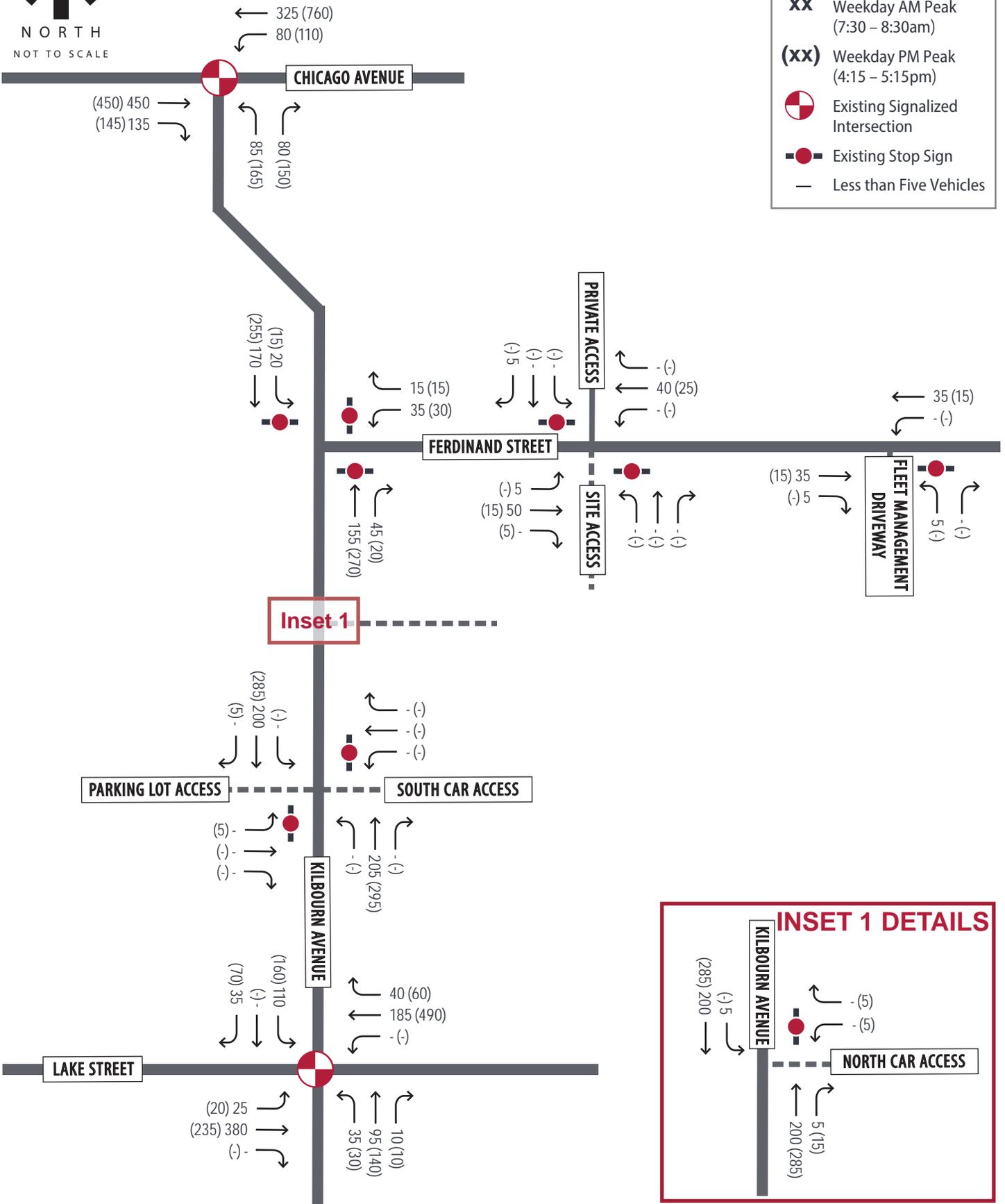
- Ferdinand Street / Kilbourn Avenue
- Kilbourn Avenue / North Car Access
- Kilbourn Avenue / Parking Lot Access/South Car Access
- Ferdinand Street / Site Access
- Ferdinand Street / Fleet Management Driveway
- Chicago Avenue / Kilbourn Avenue
- Lake Street / Kilbourn Avenue

The counts were conducted during morning (7:00 to 9:00 AM) and evening (4:00 to 6:00 PM) peak periods on a typical weekday. These count periods were selected to represent expected peak travel periods in the area. The traffic data revealed that peak traffic conditions occur within the study area from 7:30-8:30 AM and 4:15-5:15 PM. The peak hour vehicle traffic volumes were rounded to the nearest multiple of five and balanced between the study intersections. The existing weekday peak period traffic volumes are presented in **Exhibit 2**. A summary of the traffic count data is provided in the Appendix.



**LEGEND**

- XX** Weekday AM Peak (7:30 – 8:30am)
- (XX)** Weekday PM Peak (4:15 – 5:15pm)
-  Existing Signalized Intersection
-  Existing Stop Sign
- Less than Five Vehicles



## Existing Capacity Analysis

Capacity analysis for the existing and future conditions was performed using Synchro software, Version 11. The capacity of an intersection quantifies its ability to accommodate traffic volumes and is expressed in terms of level of service (LOS), measured in average delay per vehicle. LOS grades range from A to F, with LOS A as the highest (best traffic flow and least delay), LOS E as saturated or at-capacity conditions, and LOS F as the lowest (oversaturated conditions).

The LOS grades shown below, which are provided in the Transportation Research Board’s Highway Capacity Manual (HCM), quantify and categorize the driver’s discomfort, frustration, fuel consumption, and travel times experienced as a result of intersection control and the resulting traffic queuing. A detailed description of each LOS rating can be found in **Table 2.1**.

Table 2.1 Level of Service Grading Descriptions<sup>1</sup>

Level of Service	Description
A	Minimal control delay; traffic operates at primarily free-flow conditions; unimpeded movement within traffic stream.
B	Minor control delay at signalized intersections; traffic operates at a fairly unimpeded level with slightly restricted movement within traffic stream.
C	Moderate control delay; movement within traffic stream more restricted than at LOS B; formation of queues contributes to lower average travel speeds.
D	Considerable control delay that may be substantially increased by small increases in flow; average travel speeds continue to decrease.
E	High control delay; average travel speed no more than 33 percent of free flow speed.
F	Extremely high control delay; extensive queuing and high volumes create exceedingly restricted traffic flow.

<sup>1</sup>Highway Capacity Manual, 6th Edition.

The range of control delay for each rating (as detailed in the HCM) is shown in **Table 2.2**. Because signalized intersections are expected to carry a larger volume of vehicles and stopping is required during red time, note that higher delays are tolerated for the corresponding LOS ratings.

Table 2.2 Level of Service Grading Criteria<sup>1</sup>

Level of Service	Average Control Delay (s/veh) at:	
	Unsignalized Intersections	Signalized Intersections
A	0 – 10	0 – 10
B	> 10 – 15	> 10 – 20
C	> 15 – 25	> 20 – 35
D	> 25 – 35	> 35 – 55
E	> 35 – 50	> 55 – 80
F <sup>2</sup>	> 50	> 80

<sup>1</sup>Highway Capacity Manual, 6th Edition

<sup>2</sup>All movements with a Volume to Capacity (v/C) ratio greater than 1 receive a rating of LOS F.

Based on these standards, capacity results were identified for the study intersections under existing conditions. The results of capacity analysis for existing conditions are summarized in **Table 2.3**. In this table, operation on each approach is quantified according to the average delay per vehicle and the corresponding level of service. The results for the unsignalized study intersections are based on

HCM 6th Edition capacity analysis; results for signalized intersections are based on Synchro's Lanes, Volumes, Timings reports. Copies of the capacity reports are provided in the appendix.

Table 2.3 Existing (2022) Levels of Service

Intersection	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Kilbourn Avenue / Ferdinand Street ▲				
Westbound	9	A	9	A
Northbound	9	A	10+	B
Southbound	10-	A	11	B
<i>Intersection</i>	9	A	11	B
Kilbourn Avenue / North Car Access △				
Westbound	11	B	12	B
Southbound (Left)	8	A	8	A
Kilbourn Avenue / Parking Lot Access-South Car Access △				
Eastbound	12	B	14	B
Westbound	12	B	15	B
Northbound (Left)	8	A	8	A
Southbound (Left)	8	A	8	A
Site Access / Ferdinand Street △				
Westbound (Left)	7	A	7	A
Northbound	9	A	9	A
Fleet Management Driveway / Ferdinand Street △				
Westbound (Left)	8	A	7	A
Northbound	9	A	9	A
Kilbourn Avenue / Chicago Avenue *				
Eastbound	18	B	29	C
Westbound	7	A	95	F
Northbound	17	B	20	B
<i>Intersection</i>	14	B	60	E
Kilbourn Avenue / Lake Street *				
Eastbound	6	A	7	A
Westbound	4	A	7	A
Northbound	21	B	20	B
Southbound	24	B	26	C
<i>Intersection</i>	11	A	13	B

\* – Signalized Intersection    ▲ – All-Way Stop-Controlled Intersection    △ – Minor-Leg Stop-Controlled Intersection

The majority of intersections and approaches operate well with little delay at LOS C or better during both peak hours. The exception is the intersection of Kilbourn Avenue/Chicago Avenue which operates at LOS E during the evening peak hour, due to the westbound approach operating at LOS F. The traffic volumes in the westbound direction are significantly higher and more than double in the evening than the morning peak hour. Due to the single shared lane for the through and left-turn movements, the westbound approach requires additional time allocation to achieve a better level of service. Physical modifications, such as adding a separate westbound left turn lane is not feasible as the intersection is surrounded by retaining walls and a railroad viaduct on the west leg of the intersection.

### 3. DEVELOPMENT CHARACTERISTICS

This section of the report outlines the proposed site plan and facility expansion, summarizes site-specific traffic characteristics, and develops future traffic projections for analysis.

#### Development Characteristics

Chicago Beverage Systems is planning to increase daily operations, which requires an expansion of the existing building. The proposed plan includes an expansion of approximately 81,000 square feet on the east side of the existing 289,000 square-foot facility. Access to the existing employee parking lots is provided on both sides of Kilbourn Avenue and would remain in place.

With the proposed building expansion, the loading docks would be relocated from the existing portion of the building to the newly constructed east side of the building. Additionally, the number of truck docks would be increased to 20 docks. The existing truck parking lot located immediately east of the proposed building expansion would be modified. Currently, access to the truck parking lot is provided via one full-access driveway to Ferdinand Street. The proposed plan would convert the existing full-access driveway to an exit-only driveway and an entrance-only driveway from Ferdinand Street would be established in the northeast corner of the parking lot.

#### Trip Generation

Due to the unique nature of operations at the site, traffic counts at the existing driveways were used to calculate site-generated trips associated with the increased operations and building expansion. The building is proposed to be expanded by approximately 30 percent, with operations expected to scale up proportionally with the building floor area. However, to provide a conservative analysis, the existing site traffic volumes were doubled. The proposed site-generated trips associated with the building expansion outlined in Table 3.1. It should be noted that truck operations on site are expected to remain consistent with existing conditions, only relocated to the east side of the building.

Table 3.1 Site-Generated Traffic Projections<sup>1</sup>

Land Use	Size	Type	Weekday					
			AM Peak Hour			PM Peak Hour		
			In	Out	Total	In	Out	Total
Proposed Building Expansion	81,000 sq. ft.	Passenger Vehicles	10	-	10	20	15	35

<sup>1</sup> Projected volumes are conservatively estimated as equal to the existing trip generation associated with the current 289,000 square-foot facility.

#### Directional Distribution

The estimated distribution of expansion-generated traffic on the surrounding roadway network as it approaches and departs the site is a function of several variables, such as the nature of surrounding land uses, prevailing traffic volumes/patterns, characteristics of the street system, and the ease with which motorists can travel over various sections of that system. The anticipated directional distributions are outlined in **Table 3.2**.

**Table 3.2 Estimated Trip Distribution**

Traveling to/from	Estimated Trip Distribution
West on Chicago Avenue	40%
East on Chicago Avenue	10%
West on Lake Street	10%
East on Lake Street	40%
<b>Total</b>	<b>100%</b>

### Site Traffic Assignment

Assignment of peak hour traffic volumes associated with the proposed expansion across the study intersections is based on the estimated trip generation (Table 3.1) in conjunction with the directional distribution (Table 3.2). Based on these assumptions, the total site trip assignment is illustrated on **Exhibit 3**.

### Future (Year 2028) Background Traffic Projections

Background traffic volumes were estimated using data from the Chicago Metropolitan Agency for Planning (CMAP). Based on information received from CMAP, traffic growth on Lake Street, Kilbourn Avenue, and Chicago Avenue is projected at a compounded rate of roughly 0.4 to 0.6 percent annual through Year 2050. Therefore, an annual growth rate of 0.5 percent was applied to all movements at the study intersections to account for background traffic growth. The proposed expansion is planned to be constructed and occupied in Year 2023. The future background traffic projections for Year 2028 (build year + five years) are presented in **Exhibit 4**.

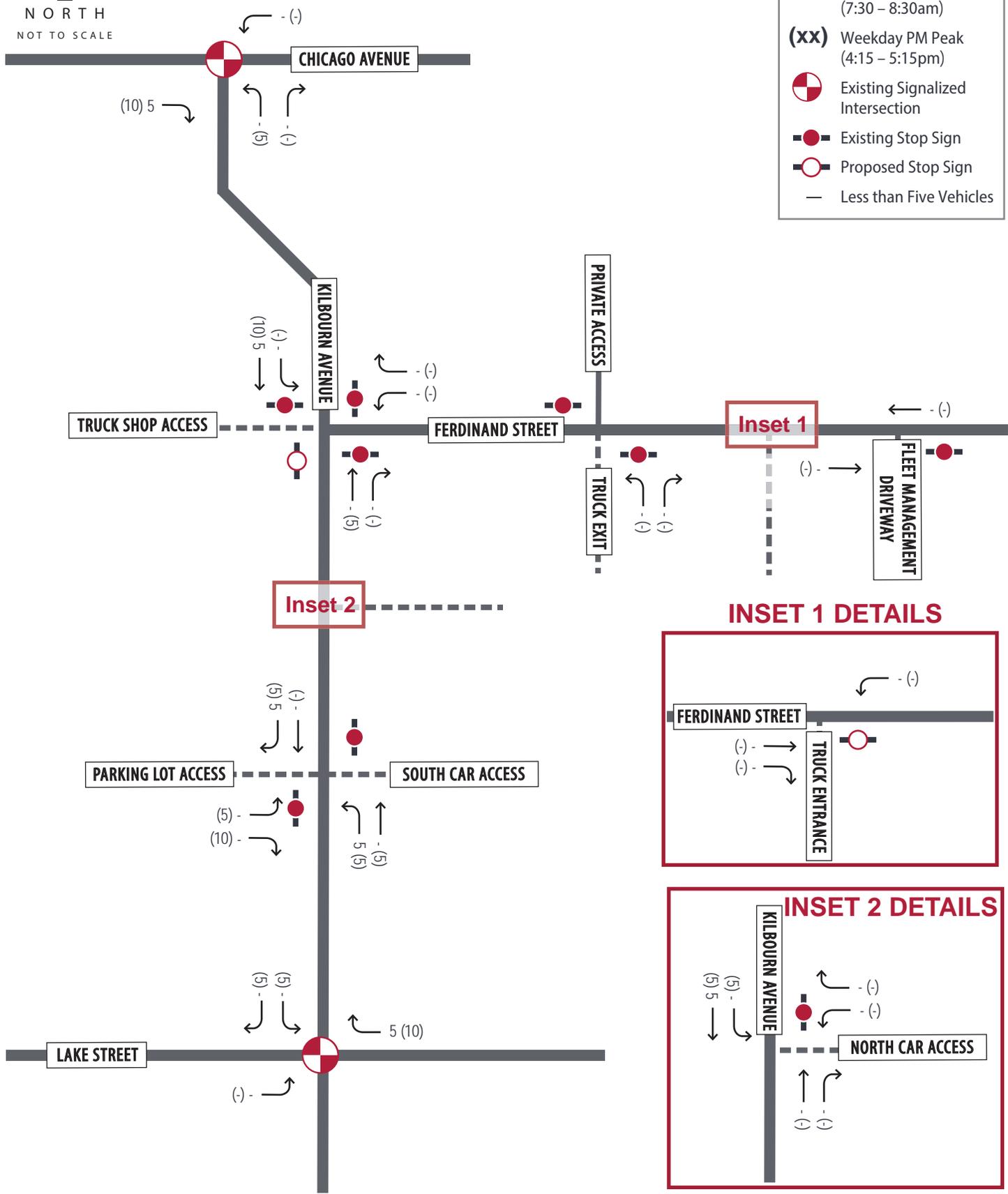
### Total Traffic Assignment

The total traffic assignment represents the future traffic volumes at the study intersections upon construction and occupancy of the proposed facility expansion. The future traffic projections are comprised of the site traffic assignment (Exhibit 3) and the Year 2028 Background Traffic Projections. The total traffic assignments for Year 2028 are illustrated in **Exhibit 5**.

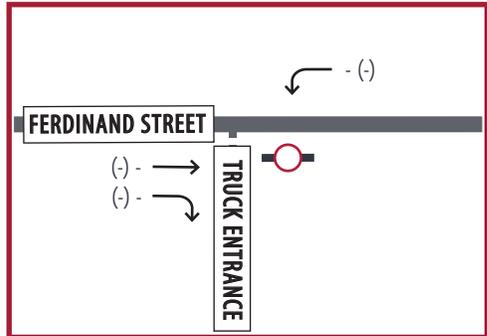


**LEGEND**

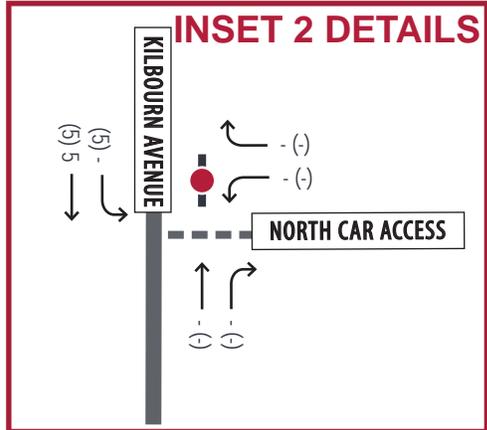
- XX** Weekday AM Peak (7:30 – 8:30am)
- (XX)** Weekday PM Peak (4:15 – 5:15pm)
- Existing Signalized Intersection
- Existing Stop Sign
- Proposed Stop Sign
- Less than Five Vehicles



**INSET 1 DETAILS**



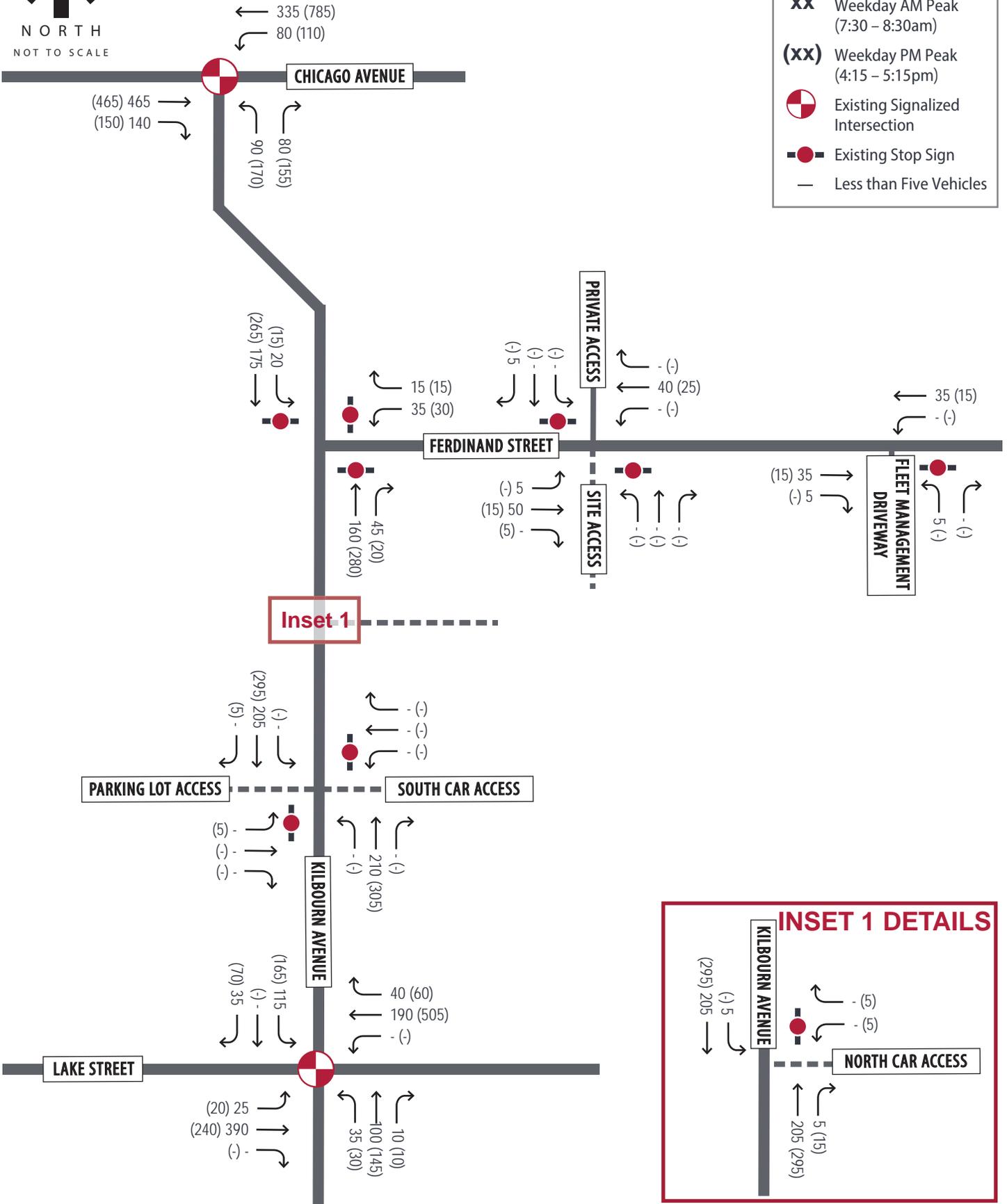
**INSET 2 DETAILS**





**LEGEND**

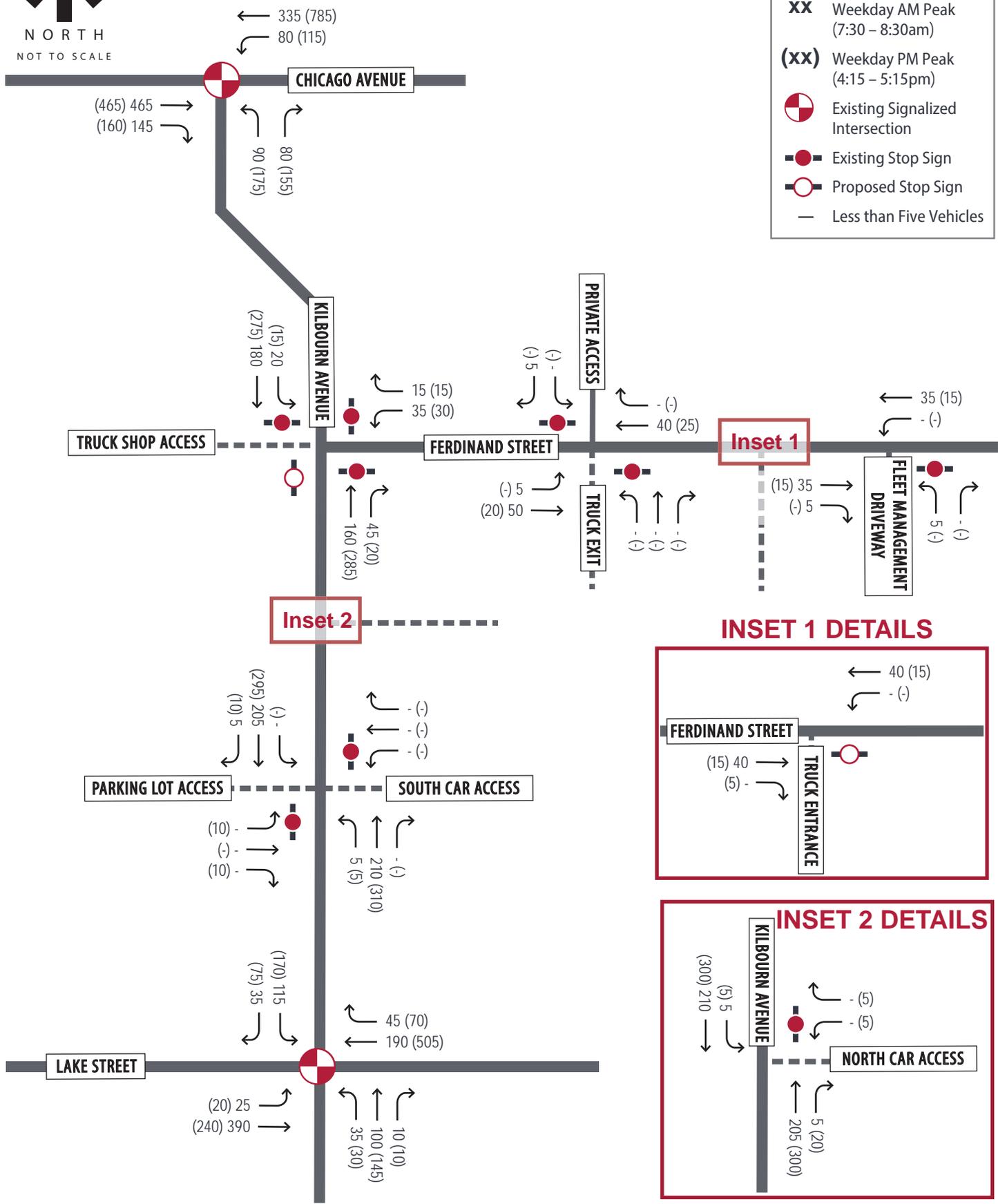
- XX** Weekday AM Peak (7:30 – 8:30am)
- (XX)** Weekday PM Peak (4:15 – 5:15pm)
- Existing Signalized Intersection
- Existing Stop Sign
- Less than Five Vehicles



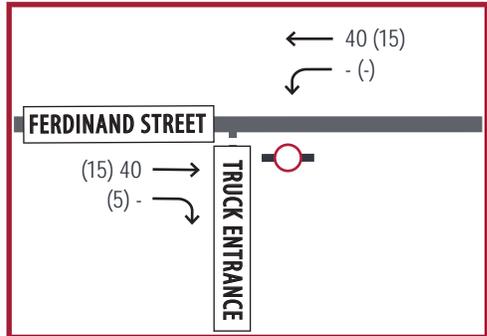


### LEGEND

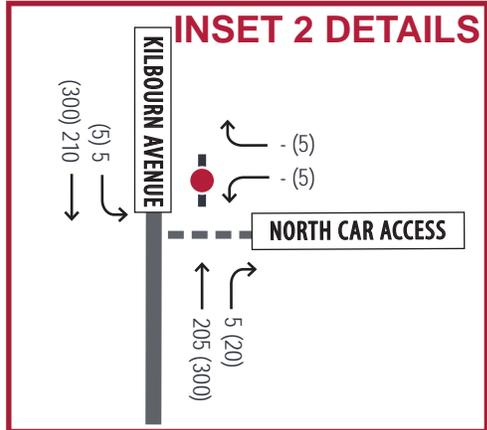
- XX** Weekday AM Peak (7:30 – 8:30am)
- (XX)** Weekday PM Peak (4:15 – 5:15pm)
- Existing Signalized Intersection
- Existing Stop Sign
- Proposed Stop Sign
- Less than Five Vehicles



### INSET 1 DETAILS



### INSET 2 DETAILS



## 4. FUTURE CONDITIONS

This section of the report outlines the analysis of projected future traffic conditions at the study intersections and whether the impact of the proposed expansion warrants the need for mitigating improvements.

### Future Roadway Geometry

Turn lane warrants were evaluated for the existing and proposed site driveways on Kilbourn Avenue and Ferdinand Street. Based on future build traffic volumes, no dedicated turn lanes are warranted at any of the site driveways. Additionally, as detailed later in this report, results from the future capacity analysis indicate that all inbound movements at the site driveways operate well with little delay or queuing, without the installation of dedicated turn lanes.

### Future Conditions (Year 2028) Capacity Analysis

Based on the volume projections presented in Exhibit 5, capacity analysis results were identified for the study intersections under the Year 2028 analysis horizon as summarized in **Table 4.1**. Consistent with the Existing (Year 2022) Conditions analysis, the results for the stop-controlled study intersections are based on Synchro’s HCM 6<sup>th</sup> Edition reports and the signalized intersections are based on Synchro’s Lanes, Volumes, Timings reports.

Table 4.1 Future (Year 2028) Levels of Service

Intersection	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Kilbourn Avenue / Ferdinand Street ▲				
Westbound	9	A	9	A
Northbound	9	A	11	B
Southbound	10-	A	12	B
<i>Intersection</i>	<i>10-</i>	<i>A</i>	<i>11</i>	<i>B</i>
Kilbourn Avenue / North Car Access △				
Westbound	11	B	13	B
Southbound (Left)	8	A	8	A
Kilbourn Avenue / Parking Lot Access/South Car Access △				
Eastbound	13	B	14	B
Westbound	12	B	14	B
Northbound (Left)	8	A	8	A
Southbound (Left)	8	A	8	A
Ferdinand Street / Truck Exit △				
Northbound	9	A	9	A
Fleet Management Driveway / Ferdinand Street △				
Westbound (Left)	8	A	7	A
Northbound	9	A	9	A
Kilbourn Avenue / Chicago Avenue ★				
Eastbound	19	B	32	C
Westbound	8	A	>120	F
Northbound	17	B	20+	C

Table 4.1 Future (Year 2028) Levels of Service (continued)

Intersection	Weekday AM Peak Hour		Weekday PM Peak Hour	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Kilbourn Avenue / Lake Street	★			
Eastbound	6	A	8	A
Westbound	5	A	8	A
Northbound	21	B	19	B
Southbound	24	B	26	C
<i>Intersection</i>	<i>11</i>	<i>A</i>	<i>13</i>	<i>B</i>

★ – Signalized Intersection      ▲ – All-Way Stop-Controlled Intersection      △ – Minor-Leg Stop-Controlled Intersection

Similar to existing conditions, the majority of study intersections and approaches are expected to operate with low levels of delay at LOS C or better during both peak hours. Without any changes to the intersection or traffic signal timing, the westbound approach at the intersection of Kilbourn Avenue/Chicago Avenue is expected to continue operating at LOS F during the evening peak hour. This intersection and approaches are expected to operate at the same levels of delay and levels of service as existing conditions during the morning peak hour.

As an opportunity to address the poor existing and projected levels of service for westbound Chicago Avenue at Kilbourn Street, alternative signal timing adjustments were evaluated. Roadway widening is not feasible due to the intersection being physically constrained by surrounding retaining walls and a railroad viaduct just west of the intersection. However, as a consideration for improving traffic conditions on the westbound approach and for the overall intersection, a reallocation of 5 seconds from the northbound phase to the eastbound/westbound phase is expected to improve the overall intersection and westbound approach capacity as outlined in Table 4.2.

Table 4.2 Future (Year 2028) Weekday PM Peak Hour Comparison (without vs. with traffic signal timing adjustment)

Intersection	Without Mitigation		With Mitigation <sup>1</sup>	
	Delay (s/veh)	LOS	Delay (s/veh)	LOS
Kilbourn Avenue / Chicago Avenue	★			
Eastbound	32	C	32	C
Westbound	>120	F	50	D
Northbound	20+	C	25	C
<i>Intersection</i>	<i>89</i>	<i>F</i>	<i>37</i>	<i>D</i>

★ – Signalized Intersection      ▲ – All-Way Stop-Controlled Intersection      △ – Minor-Leg Stop-Controlled Intersection

<sup>1</sup> Mitigation consists of reallocating 5 seconds of green time from the northbound approach on Kilbourn Avenue to the east-west movements on Chicago Avenue.

With the suggested traffic signal re-timing, the westbound approach level of service is expected to improve to LOS D while the northbound approach remains at an acceptable level of service. Future condition analysis indicates that the overall intersection level of service will also improve from LOS F to LOS D with the suggested signal re-timing plan adjustment.

## 5. RECOMMENDATIONS & CONCLUSIONS

Based on Kimley-Horn's review of the proposed site plan, facility expansion, and site-specific traffic characteristics, a comparative evaluation of existing and future traffic conditions indicates that the proposed increase in operations and associated building expansion is not expected to create a significant impact on the capacities of the study intersections. A comparison of average vehicle delays and levels of service indicates minimal, if any, changes between current and projected future conditions.

To address an existing capacity issue on the westbound approach of Chicago Avenue at Kilbourn Street, a reallocation of 5 seconds of green time from the northbound approach to the westbound through movement should be considered.

Improvements to the surrounding streets and intersections are not recommended to mitigate impacts of the proposed facility expansion. Rather, the traffic signal re-timing would address an existing and ongoing capacity issue.

Minor-leg stop-control with stop signs and stop bars should be posted at the proposed site driveways. The driveways at the truck parking lot should be designed to accommodate truck turning maneuvers.

Regardless of the final configuration of the intersection geometrics, several additional items should be taken into consideration when preparing site and roadway improvement plans for the subject development. As the site design progresses, care should be taken with landscaping, signage, and monumentation at the site access locations to ensure that adequate horizontal sight distance is maintained. If alterations to the site plan or land use should occur, changes to the analysis provided within this traffic impact study may be needed.

**TECHNICAL APPENDIX**

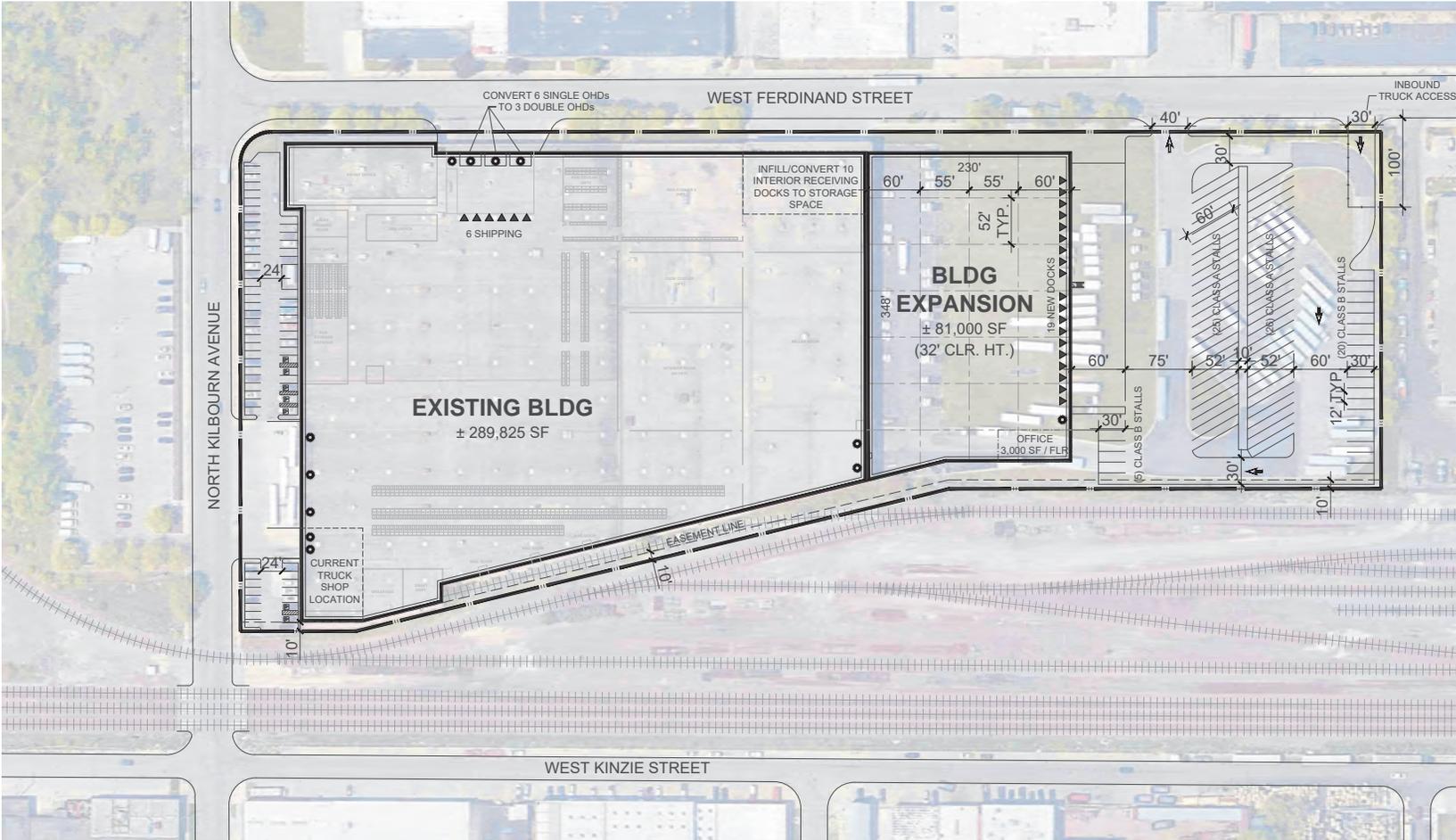
Site Plan

Traffic Count Data

Existing (2022) Capacity Reports

Future (Year 2028) Build Capacity Reports

**SITE PLAN**



**PROJECT DATA:**

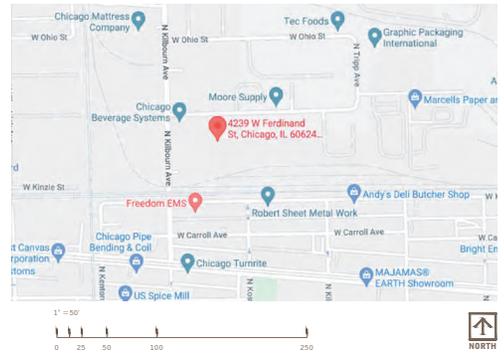
SITE AREA:	
GROSS:	13.44 AC
EXISTING BLDG:	±289,825 SF
NEW BLDG ADDITION:	81,000 SF
TOTAL BLDG AREA:	370,825 SF
COVERAGE:	
GROSS:	63%
PARKING PROVIDED:	
AUTO:	67 STALLS @0.18/1000 SF
REQ. ACCESSIBLE:	3 STALLS
CLASS B:	25 STALLS
CLASS A:	51 STALLS
TRUCK DOCKS:	
▲ DOCK-HIGH DOORS:	25
○ GRADE-LEVEL DOORS:	10

EXISTING FLOOR AREA RATIO (F.A.R.) .5  
 NEW FLOOR AREA RATIO (F.A.R.) .63

This conceptual design is based upon a preliminary review of entitlement requirements and on unverified and possibly incomplete site and/or building information, and is intended merely to assist in exploring how the project might be developed.

Stormwater Management Design: AVERAGE REGIONAL REQUIRED PROVIDED

Boundary Source: GIS MAP & AERIAL IMAGE



schema: 04 Existing Site Plan

4239 West Ferdinand Street  
 Chicago, IL 60624

**TRAFFIC COUNT DATA**

01\_Ferdinand Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977009, Location: 41.889635, -87.738218



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Westbound					Kilbourne Ave Northbound					Kilbourne Ave Southbound					Int
	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	
2022-08-10 7:00AM	7	2	0	9	0	35	9	0	44	0	5	38	0	43	0	96
7:15AM	5	1	0	6	0	27	7	0	34	0	2	39	0	41	0	81
7:30AM	5	5	0	10	0	40	6	0	46	0	7	46	0	53	0	109
7:45AM	6	2	0	8	0	41	26	0	67	0	6	46	0	52	0	127
Hourly Total	23	10	0	33	0	143	48	0	191	0	20	169	0	189	0	413
8:00AM	12	1	0	13	0	36	8	0	44	0	3	34	0	37	0	94
8:15AM	11	6	0	17	0	33	5	0	38	0	2	44	0	46	0	101
8:30AM	8	7	0	15	0	40	7	0	47	0	2	37	0	39	0	101
8:45AM	6	4	0	10	0	34	9	0	43	0	4	29	0	33	0	86
Hourly Total	37	18	0	55	0	143	29	0	172	0	11	144	0	155	0	382
4:00PM	11	1	0	12	0	50	6	0	56	0	1	73	0	74	0	142
4:15PM	5	3	0	8	0	60	6	0	66	0	2	66	0	68	0	142
4:30PM	12	10	0	22	1	68	5	0	73	0	6	65	0	71	0	166
4:45PM	5	1	0	6	1	60	4	0	64	0	7	51	0	58	0	128
Hourly Total	33	15	0	48	2	238	21	0	259	0	16	255	0	271	0	578
5:00PM	6	3	0	9	0	83	4	0	87	0	2	72	0	74	0	170
5:15PM	7	1	0	8	1	65	9	0	74	0	1	47	0	48	0	130
5:30PM	2	2	0	4	0	60	8	0	68	0	1	59	0	60	0	132
5:45PM	2	0	0	2	1	51	6	0	57	0	3	48	0	51	0	110
Hourly Total	17	6	0	23	2	259	27	0	286	0	7	226	0	233	0	542
<b>Total</b>	110	49	0	159	4	783	125	0	908	0	54	794	0	848	0	1915
<b>% Approach</b>	69.2%	30.8%	0%	-	-	86.2%	13.8%	0%	-	-	6.4%	93.6%	0%	-	-	-
<b>% Total</b>	5.7%	2.6%	0%	8.3%	-	40.9%	6.5%	0%	47.4%	-	2.8%	41.5%	0%	44.3%	-	-
<b>Lights</b>	79	27	0	106	-	742	94	0	836	-	38	750	0	788	-	1730
<b>% Lights</b>	71.8%	55.1%	0%	66.7%	-	94.8%	75.2%	0%	92.1%	-	70.4%	94.5%	0%	92.9%	-	90.3%
<b>Articulated Trucks</b>	5	10	0	15	-	19	12	0	31	-	9	21	0	30	-	76
<b>% Articulated Trucks</b>	4.5%	20.4%	0%	9.4%	-	2.4%	9.6%	0%	3.4%	-	16.7%	2.6%	0%	3.5%	-	4.0%
<b>Buses and Single-Unit Trucks</b>	26	12	0	38	-	17	17	0	34	-	7	23	0	30	-	102
<b>% Buses and Single-Unit Trucks</b>	23.6%	24.5%	0%	23.9%	-	2.2%	13.6%	0%	3.7%	-	13.0%	2.9%	0%	3.5%	-	5.3%
<b>Bicycles on Road</b>	0	0	0	0	-	5	2	0	7	-	0	0	0	0	-	7
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	0.6%	1.6%	0%	0.8%	-	0%	0%	0%	0%	-	0.4%
Pedestrians	-	-	-	-	3	-	-	-	-	0	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	75.0%	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	25.0%	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

01\_Ferdinand Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

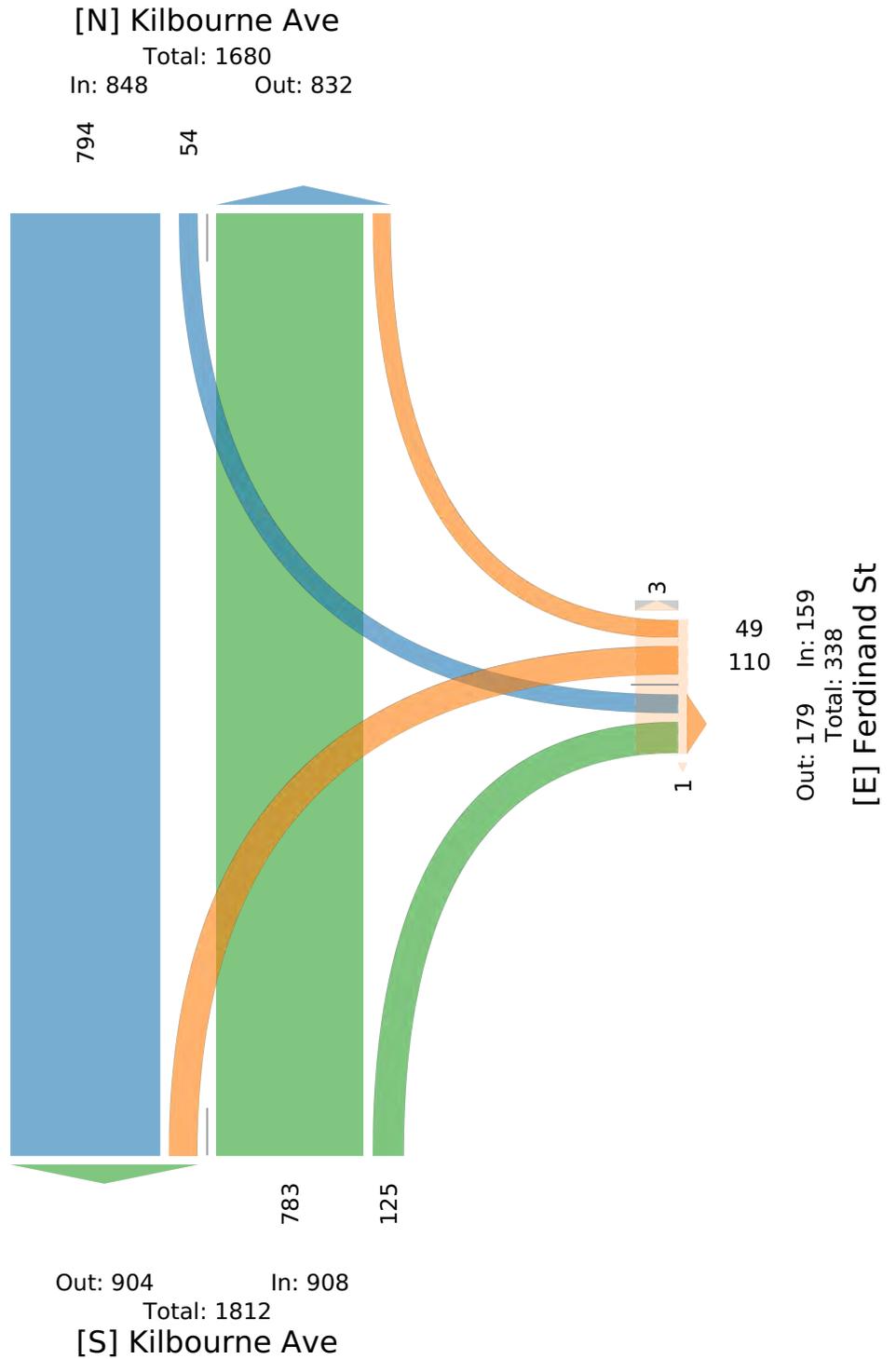
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977009, Location: 41.889635, -87.738218



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



01\_Ferdinand Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977009, Location: 41.889635, -87.738218



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Westbound					Kilbourne Ave Northbound					Kilbourne Ave Southbound					
Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
2022-08-10 7:30AM	5	5	0	10	0	40	6	0	46	0	7	46	0	53	0	109
7:45AM	6	2	0	8	0	41	26	0	67	0	6	46	0	52	0	127
8:00AM	12	1	0	13	0	36	8	0	44	0	3	34	0	37	0	94
8:15AM	11	6	0	17	0	33	5	0	38	0	2	44	0	46	0	101
<b>Total</b>	34	14	0	48	0	150	45	0	195	0	18	170	0	188	0	431
<b>% Approach</b>	70.8%	29.2%	0%	-	-	76.9%	23.1%	0%	-	-	9.6%	90.4%	0%	-	-	-
<b>% Total</b>	7.9%	3.2%	0%	11.1%	-	34.8%	10.4%	0%	45.2%	-	4.2%	39.4%	0%	43.6%	-	-
<b>PHF</b>	0.708	0.583	-	0.706	-	0.896	0.433	-	0.716	-	0.643	0.924	-	0.887	-	0.843
<b>Lights</b>	23	6	0	29	-	130	38	0	168	-	14	152	0	166	-	363
<b>% Lights</b>	67.6%	42.9%	0%	60.4%	-	86.7%	84.4%	0%	86.2%	-	77.8%	89.4%	0%	88.3%	-	84.2%
<b>Articulated Trucks</b>	1	2	0	3	-	9	4	0	13	-	2	10	0	12	-	28
<b>% Articulated Trucks</b>	2.9%	14.3%	0%	6.3%	-	6.0%	8.9%	0%	6.7%	-	11.1%	5.9%	0%	6.4%	-	6.5%
<b>Buses and Single-Unit Trucks</b>	10	6	0	16	-	8	3	0	11	-	2	8	0	10	-	37
<b>% Buses and Single-Unit Trucks</b>	29.4%	42.9%	0%	33.3%	-	5.3%	6.7%	0%	5.6%	-	11.1%	4.7%	0%	5.3%	-	8.6%
<b>Bicycles on Road</b>	0	0	0	0	-	3	0	0	3	-	0	0	0	0	-	3
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	2.0%	0%	0%	1.5%	-	0%	0%	0%	0%	-	0.7%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

01\_Ferdinand Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

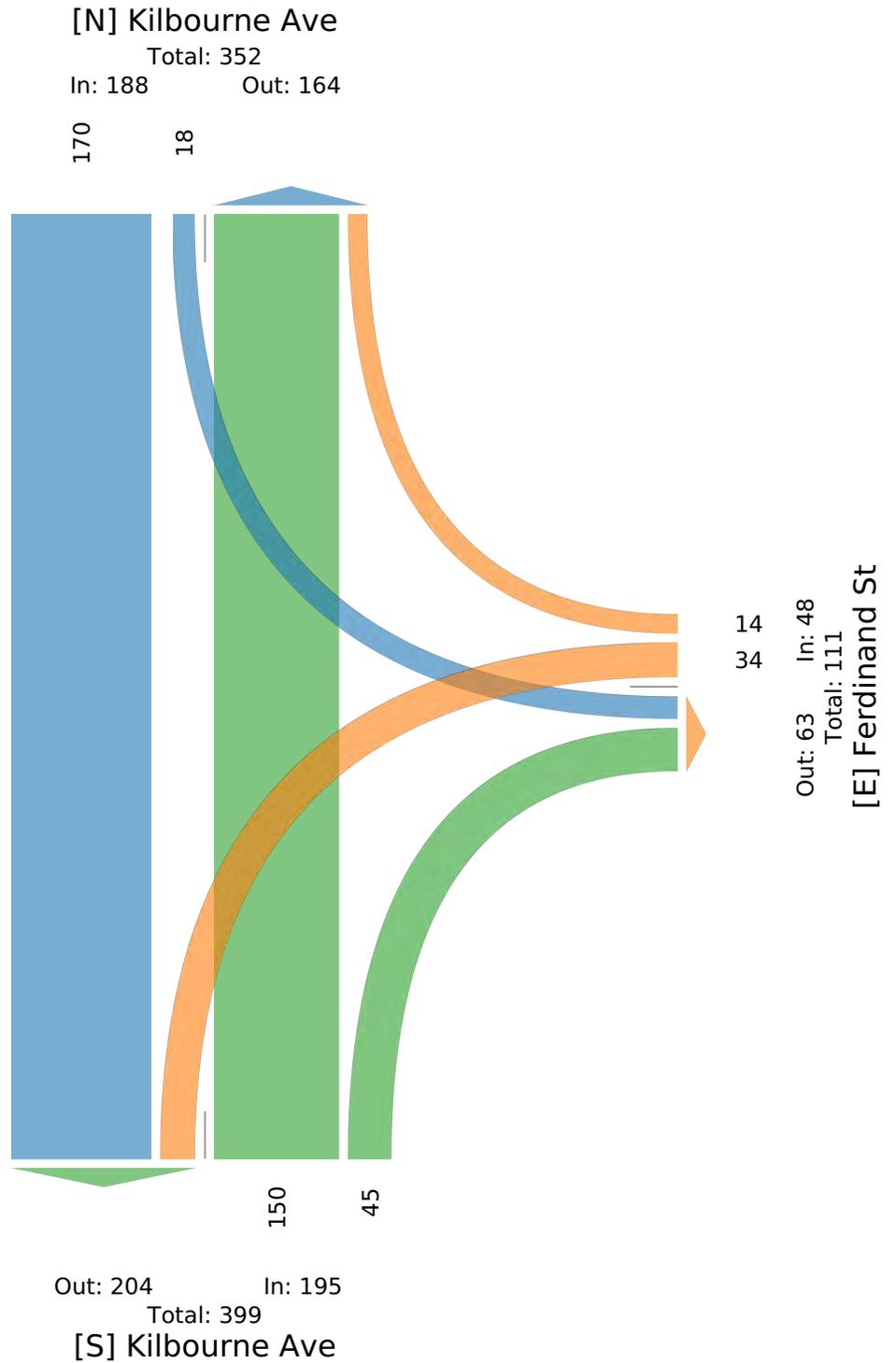
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977009, Location: 41.889635, -87.738218



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



01\_Ferdinand Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977009, Location: 41.889635, -87.738218



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Westbound					Kilbourne Ave Northbound					Kilbourne Ave Southbound					Int
	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	
2022-08-10 4:15PM	5	3	0	8	0	60	6	0	66	0	2	66	0	68	0	142
4:30PM	12	10	0	22	1	68	5	0	73	0	6	65	0	71	0	166
4:45PM	5	1	0	6	1	60	4	0	64	0	7	51	0	58	0	128
5:00PM	6	3	0	9	0	83	4	0	87	0	2	72	0	74	0	170
<b>Total</b>	28	17	0	45	2	271	19	0	290	0	17	254	0	271	0	606
<b>% Approach</b>	62.2%	37.8%	0%	-	-	93.4%	6.6%	0%	-	-	6.3%	93.7%	0%	-	-	-
<b>% Total</b>	4.6%	2.8%	0%	7.4%	-	44.7%	3.1%	0%	47.9%	-	2.8%	41.9%	0%	44.7%	-	-
<b>PHF</b>	0.583	0.425	-	0.511	-	0.810	0.750	-	0.825	-	0.607	0.882	-	0.916	-	0.887
<b>Lights</b>	22	14	0	36	-	261	11	0	272	-	12	243	0	255	-	563
<b>% Lights</b>	78.6%	82.4%	0%	80.0%	-	96.3%	57.9%	0%	93.8%	-	70.6%	95.7%	0%	94.1%	-	92.9%
<b>Articulated Trucks</b>	0	3	0	3	-	4	0	0	4	-	3	4	0	7	-	14
<b>% Articulated Trucks</b>	0%	17.6%	0%	6.7%	-	1.5%	0%	0%	1.4%	-	17.6%	1.6%	0%	2.6%	-	2.3%
<b>Buses and Single-Unit Trucks</b>	6	0	0	6	-	4	7	0	11	-	2	7	0	9	-	26
<b>% Buses and Single-Unit Trucks</b>	21.4%	0%	0%	13.3%	-	1.5%	36.8%	0%	3.8%	-	11.8%	2.8%	0%	3.3%	-	4.3%
<b>Bicycles on Road</b>	0	0	0	0	-	2	1	0	3	-	0	0	0	0	-	3
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	0.7%	5.3%	0%	1.0%	-	0%	0%	0%	0%	-	0.5%
<b>Pedestrians</b>	-	-	-	-	2	-	-	-	-	0	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

01\_Ferdinand Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

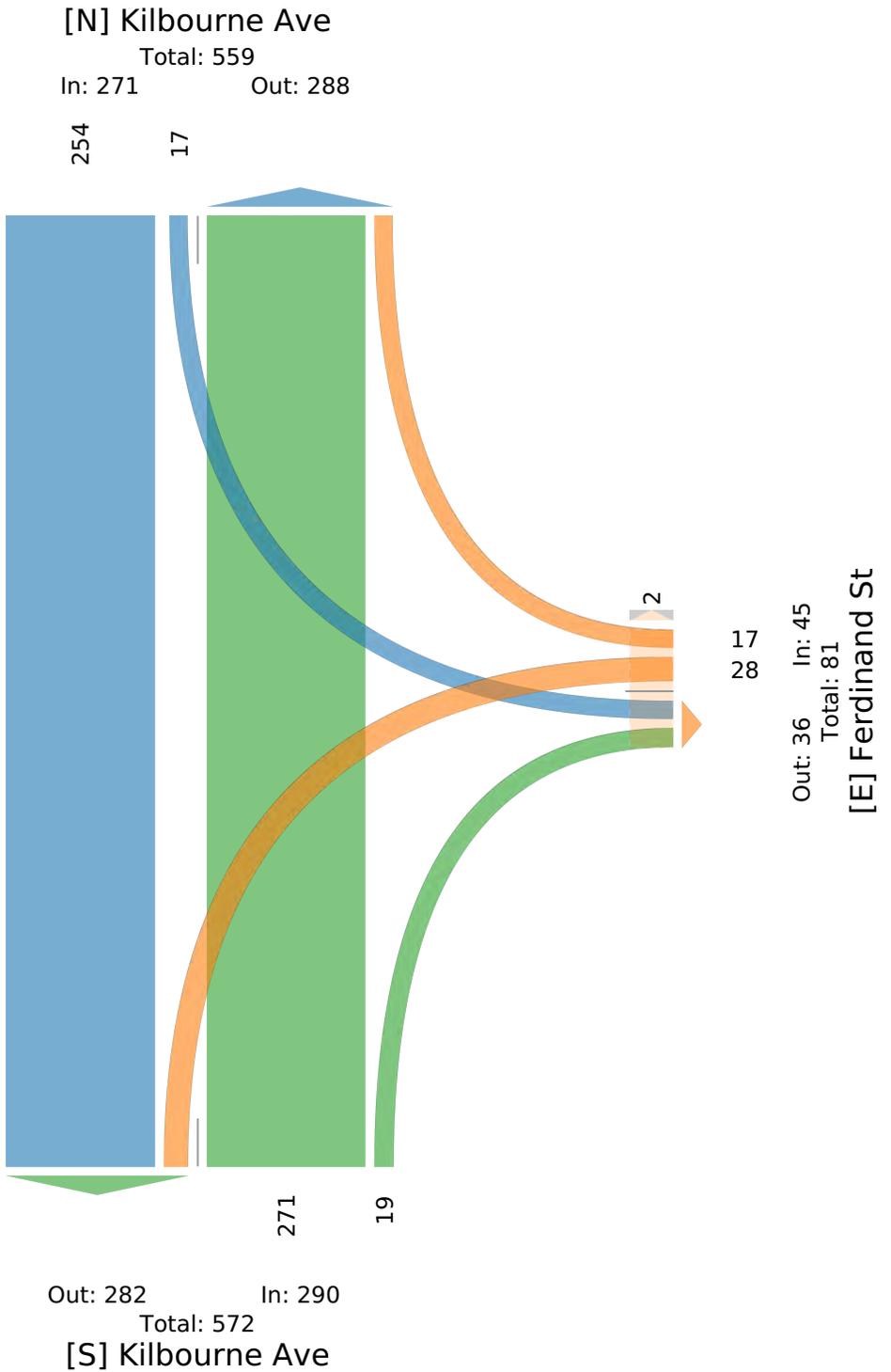
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977009, Location: 41.889635, -87.738218



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



02\_Kilbourn Avenue & North Car Access - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977010, Location: 41.888608, -87.738194



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	North Car Access Westbound					Kilbourne Ave Northbound					Kilbourne Ave Southbound					Int
	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	
Time																
2022-08-10 7:00AM	1	0	0	1	0	44	0	0	44	2	1	42	0	43	0	88
7:15AM	2	0	0	2	0	35	0	0	35	0	2	45	0	47	0	84
7:30AM	0	1	0	1	0	54	1	0	55	0	2	47	0	49	0	105
7:45AM	1	1	0	2	0	64	4	0	68	1	1	52	1	54	0	124
Hourly Total	4	2	0	6	0	197	5	0	202	3	6	186	1	193	0	401
8:00AM	0	0	0	0	0	44	0	0	44	1	1	44	0	45	0	89
8:15AM	1	0	0	1	0	41	0	0	41	0	0	57	0	57	0	99
8:30AM	0	1	0	1	0	43	1	0	44	0	0	46	0	46	0	91
8:45AM	0	0	0	0	0	44	0	0	44	0	1	34	0	35	0	79
Hourly Total	1	1	0	2	0	172	1	0	173	1	2	181	0	183	0	358
4:00PM	2	2	0	4	0	54	0	0	54	0	0	86	0	86	0	144
4:15PM	0	1	0	1	1	66	0	0	66	0	0	70	1	71	0	138
4:30PM	1	1	0	2	0	71	4	0	75	2	1	76	0	77	0	154
4:45PM	2	2	0	4	1	63	7	0	70	0	0	56	0	56	0	130
Hourly Total	5	6	0	11	2	254	11	0	265	2	1	288	1	290	0	566
5:00PM	4	1	0	5	0	86	2	0	88	0	1	78	0	79	0	172
5:15PM	1	0	0	1	0	74	0	0	74	0	0	55	0	55	0	130
5:30PM	0	1	0	1	0	67	0	0	67	1	0	62	0	62	0	130
5:45PM	1	0	0	1	1	57	0	0	57	0	0	51	0	51	0	109
Hourly Total	6	2	0	8	1	284	2	0	286	1	1	246	0	247	0	541
<b>Total</b>	16	11	0	27	3	907	19	0	926	7	10	901	2	913	0	1866
<b>% Approach</b>	59.3%	40.7%	0%	-	-	97.9%	2.1%	0%	-	-	1.1%	98.7%	0.2%	-	-	-
<b>% Total</b>	0.9%	0.6%	0%	1.4%	-	48.6%	1.0%	0%	49.6%	-	0.5%	48.3%	0.1%	48.9%	-	-
<b>Lights</b>	13	9	0	22	-	839	19	0	858	-	10	830	1	841	-	1721
<b>% Lights</b>	81.3%	81.8%	0%	81.5%	-	92.5%	100%	0%	92.7%	-	100%	92.1%	50.0%	92.1%	-	92.2%
<b>Articulated Trucks</b>	0	1	0	1	-	28	0	0	28	-	0	26	1	27	-	56
<b>% Articulated Trucks</b>	0%	9.1%	0%	3.7%	-	3.1%	0%	0%	3.0%	-	0%	2.9%	50.0%	3.0%	-	3.0%
<b>Buses and Single-Unit Trucks</b>	3	1	0	4	-	35	0	0	35	-	0	45	0	45	-	84
<b>% Buses and Single-Unit Trucks</b>	18.8%	9.1%	0%	14.8%	-	3.9%	0%	0%	3.8%	-	0%	5.0%	0%	4.9%	-	4.5%
<b>Bicycles on Road</b>	0	0	0	0	-	5	0	0	5	-	0	0	0	0	-	5
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	0.6%	0%	0%	0.5%	-	0%	0%	0%	0%	-	0.3%
<b>Pedestrians</b>	-	-	-	-	3	-	-	-	-	7	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

02\_Kilbourn Avenue & North Car Access - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

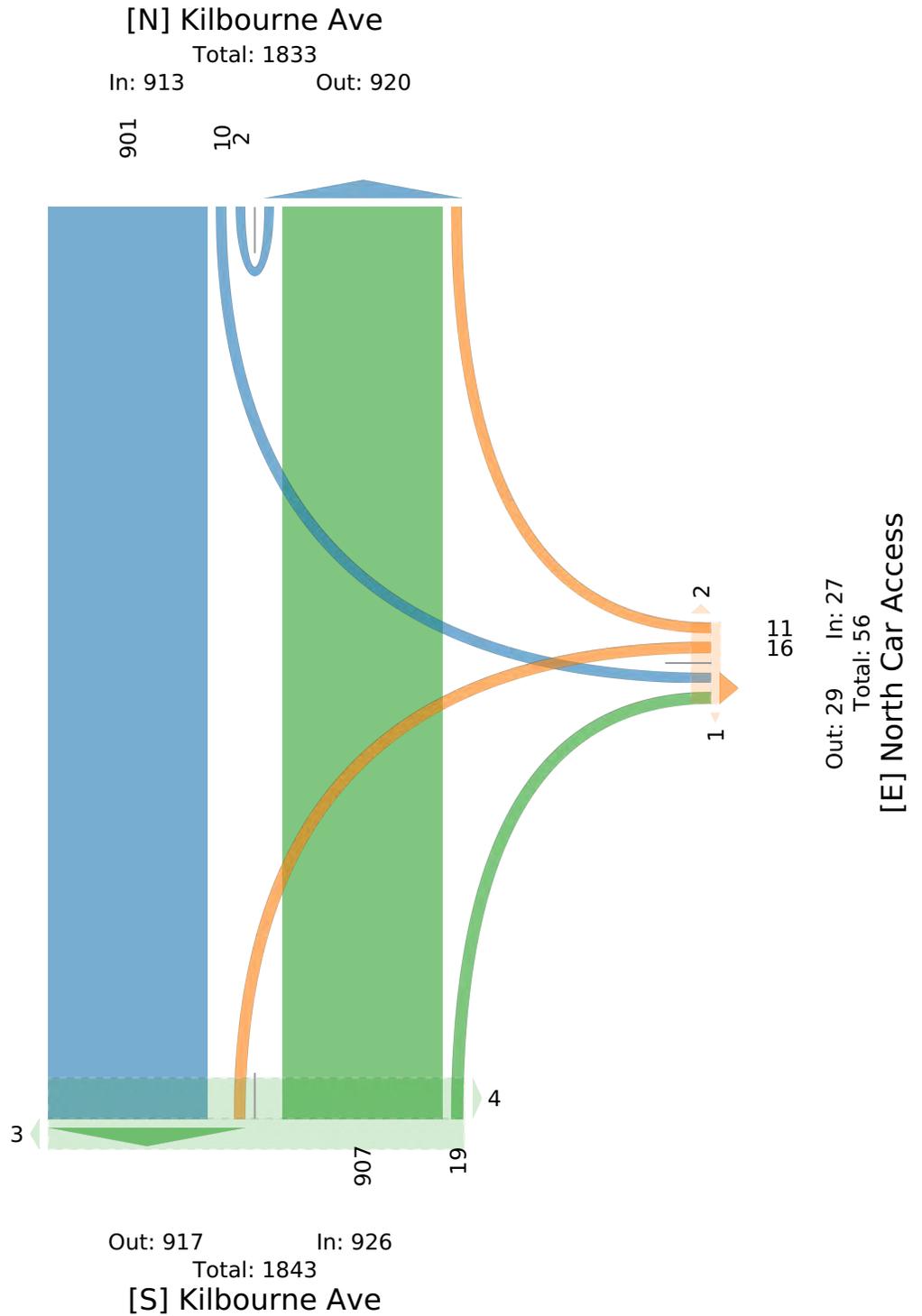
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977010, Location: 41.888608, -87.738194



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



02\_Kilbourn Avenue & North Car Access - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977010, Location: 41.888608, -87.738194



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	North Car Access Westbound					Kilbourne Ave Northbound					Kilbourne Ave Southbound					Int
	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	
Time																
2022-08-10 7:30AM	0	1	0	1	0	54	1	0	55	0	2	47	0	49	0	105
7:45AM	1	1	0	2	0	64	4	0	68	1	1	52	1	54	0	124
8:00AM	0	0	0	0	0	44	0	0	44	1	1	44	0	45	0	89
8:15AM	1	0	0	1	0	41	0	0	41	0	0	57	0	57	0	99
<b>Total</b>	2	2	0	4	0	203	5	0	208	2	4	200	1	205	0	417
<b>% Approach</b>	50.0%	50.0%	0%	-	-	97.6%	2.4%	0%	-	-	2.0%	97.6%	0.5%	-	-	-
<b>% Total</b>	0.5%	0.5%	0%	1.0%	-	48.7%	1.2%	0%	49.9%	-	1.0%	48.0%	0.2%	49.2%	-	-
<b>PHF</b>	0.500	0.500	-	0.500	-	0.790	0.313	-	0.761	-	0.500	0.877	0.250	0.899	-	0.839
<b>Lights</b>	2	2	0	4	-	176	5	0	181	-	4	175	0	179	-	364
<b>% Lights</b>	100%	100%	0%	100%	-	86.7%	100%	0%	87.0%	-	100%	87.5%	0%	87.3%	-	87.3%
<b>Articulated Trucks</b>	0	0	0	0	-	12	0	0	12	-	0	10	1	11	-	23
<b>% Articulated Trucks</b>	0%	0%	0%	0%	-	5.9%	0%	0%	5.8%	-	0%	5.0%	100%	5.4%	-	5.5%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	-	11	0	0	11	-	0	15	0	15	-	26
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	-	5.4%	0%	0%	5.3%	-	0%	7.5%	0%	7.3%	-	6.2%
<b>Bicycles on Road</b>	0	0	0	0	-	4	0	0	4	-	0	0	0	0	-	4
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	2.0%	0%	0%	1.9%	-	0%	0%	0%	0%	-	1.0%
Pedestrians	-	-	-	-	0	-	-	-	-	2	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

02\_Kilbourn Avenue & North Car Access - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

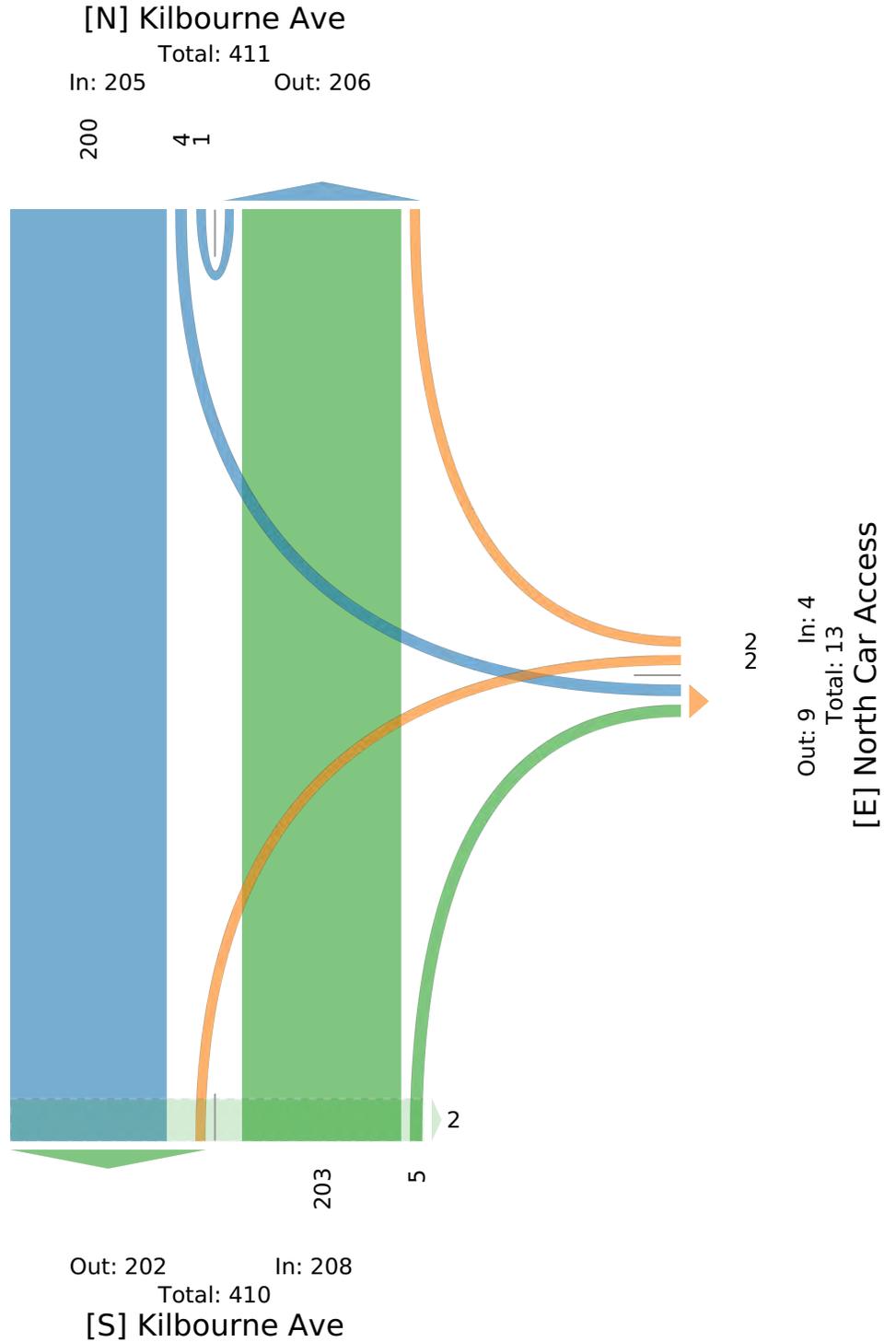
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977010, Location: 41.888608, -87.738194



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



02\_Kilbourn Avenue & North Car Access - TMC

Wed Aug 10, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977010, Location: 41.888608, -87.738194



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	North Car Access Westbound					Kilbourne Ave Northbound					Kilbourne Ave Southbound					
Time	L	R	U	App	Ped*	T	R	U	App	Ped*	L	T	U	App	Ped*	Int
2022-08-10 4:15PM	0	1	0	1	1	66	0	0	66	0	0	70	1	71	0	138
4:30PM	1	1	0	2	0	71	4	0	75	2	1	76	0	77	0	154
4:45PM	2	2	0	4	1	63	7	0	70	0	0	56	0	56	0	130
5:00PM	4	1	0	5	0	86	2	0	88	0	1	78	0	79	0	172
<b>Total</b>	7	5	0	12	2	286	13	0	299	2	2	280	1	283	0	594
<b>% Approach</b>	58.3%	41.7%	0%	-	-	95.7%	4.3%	0%	-	-	0.7%	98.9%	0.4%	-	-	-
<b>% Total</b>	1.2%	0.8%	0%	2.0%	-	48.1%	2.2%	0%	50.3%	-	0.3%	47.1%	0.2%	47.6%	-	-
<b>PHF</b>	0.438	0.625	-	0.600	-	0.831	0.464	-	0.849	-	0.500	0.897	0.250	0.896	-	0.863
<b>Lights</b>	7	4	0	11	-	272	13	0	285	-	2	262	1	265	-	561
<b>% Lights</b>	100%	80.0%	0%	91.7%	-	95.1%	100%	0%	95.3%	-	100%	93.6%	100%	93.6%	-	94.4%
<b>Articulated Trucks</b>	0	0	0	0	-	4	0	0	4	-	0	4	0	4	-	8
<b>% Articulated Trucks</b>	0%	0%	0%	0%	-	1.4%	0%	0%	1.3%	-	0%	1.4%	0%	1.4%	-	1.3%
<b>Buses and Single-Unit Trucks</b>	0	1	0	1	-	10	0	0	10	-	0	14	0	14	-	25
<b>% Buses and Single-Unit Trucks</b>	0%	20.0%	0%	8.3%	-	3.5%	0%	0%	3.3%	-	0%	5.0%	0%	4.9%	-	4.2%
<b>Bicycles on Road</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
<b>Pedestrians</b>	-	-	-	-	2	-	-	-	-	2	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	100%	-	-	-	-	100%	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	0%	-	-	-	-	0%	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

02\_Kilbourn Avenue & North Car Access - TMC

Wed Aug 10, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

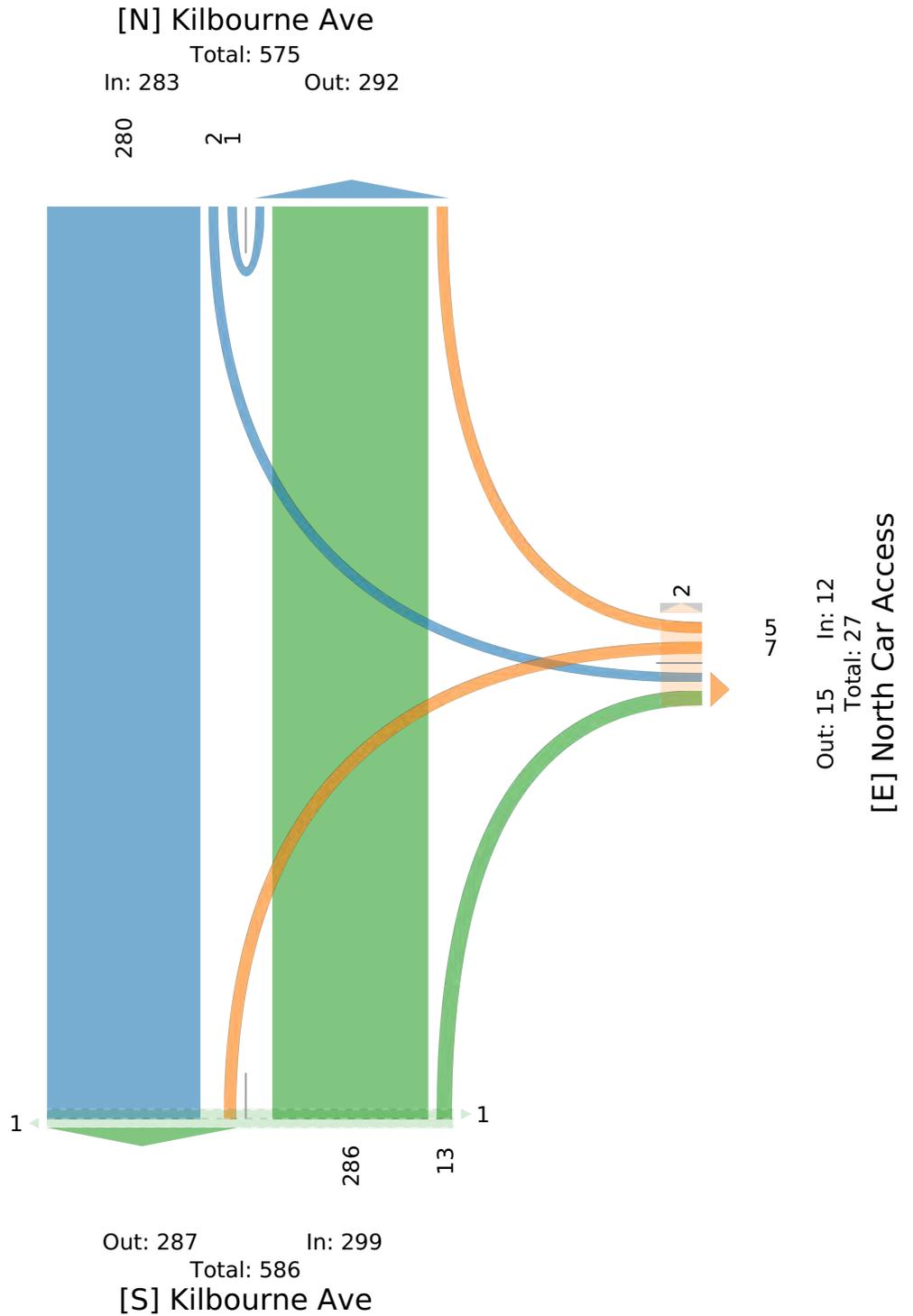
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977010, Location: 41.888608, -87.738194



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



03\_Kilbourn Avenue & South Car Access - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977011, Location: 41.888298, -87.738183



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Point Eastbound						South Car Access Westbound						Kilbourne Ave Northbound						Kilbourne Ave Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 7:00AM	1	0	0	0	1	0	0	0	0	0	0	0	0	43	0	0	43	0	0	44	0	0	44	2	88
7:15AM	0	0	0	0	0	0	0	0	0	0	0	0	0	34	0	0	34	0	0	46	0	0	46	0	80
7:30AM	1	0	0	0	1	0	1	0	0	1	2	0	0	48	0	0	48	0	0	47	0	0	47	0	98
7:45AM	0	0	0	0	0	0	0	0	0	0	0	0	1	68	1	0	70	0	0	53	0	0	53	1	123
Hourly Total	2	0	0	0	2	0	1	0	0	1	2	0	1	193	1	0	195	0	0	190	0	0	190	3	389
8:00AM	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	53	0	0	44	0	0	44	0	97
8:15AM	0	0	0	0	0	0	1	0	0	0	1	0	0	41	1	0	42	0	0	57	0	0	57	0	100
8:30AM	0	0	0	0	0	0	0	0	1	0	1	0	0	43	1	0	44	0	0	46	0	0	46	0	91
8:45AM	0	0	0	0	0	0	0	0	0	0	0	0	0	44	1	0	45	0	0	34	0	0	34	0	79
Hourly Total	0	0	0	0	0	0	1	0	1	0	2	0	0	181	3	0	184	0	0	181	0	0	181	0	367
4:00PM	0	0	1	0	1	0	0	0	0	0	0	0	0	54	0	0	54	0	1	87	1	0	89	1	144
4:15PM	0	0	0	0	0	0	1	0	0	0	1	1	0	66	0	0	66	0	0	69	1	1	71	0	138
4:30PM	3	0	1	0	4	0	0	0	0	0	0	0	0	70	0	0	70	0	0	76	2	0	78	2	152
4:45PM	1	0	1	0	2	0	0	0	0	0	0	2	1	69	0	0	70	0	0	56	1	0	57	0	129
Hourly Total	4	0	3	0	7	0	1	0	0	0	1	3	1	259	0	0	260	0	1	288	5	1	295	3	563
5:00PM	1	0	0	0	1	0	1	0	0	0	1	0	0	87	1	0	88	0	0	80	2	0	82	0	172
5:15PM	0	1	2	0	3	0	0	1	1	0	2	0	0	73	0	0	73	0	0	54	2	0	56	0	134
5:30PM	0	1	1	0	2	0	0	0	0	0	0	0	0	68	0	0	68	0	0	62	0	0	62	1	132
5:45PM	1	0	0	0	1	0	1	0	0	0	1	1	0	56	0	0	56	0	0	51	0	0	51	0	109
Hourly Total	2	2	3	0	7	0	2	1	1	0	4	1	0	284	1	0	285	0	0	247	4	0	251	1	547
<b>Total</b>	<b>8</b>	<b>2</b>	<b>6</b>	<b>0</b>	<b>16</b>	<b>0</b>	<b>5</b>	<b>1</b>	<b>2</b>	<b>1</b>	<b>9</b>	<b>4</b>	<b>2</b>	<b>917</b>	<b>5</b>	<b>0</b>	<b>924</b>	<b>0</b>	<b>1</b>	<b>906</b>	<b>9</b>	<b>1</b>	<b>917</b>	<b>7</b>	<b>1866</b>
<b>% Approach</b>	50.0%	12.5%	37.5%	0%	-	-	55.6%	11.1%	22.2%	11.1%	-	-	0.2%	99.2%	0.5%	0%	-	-	0.1%	98.8%	1.0%	0.1%	-	-	-
<b>% Total</b>	0.4%	0.1%	0.3%	0%	0.9%	-	0.3%	0.1%	0.1%	0.1%	0.5%	-	0.1%	49.1%	0.3%	0%	49.5%	-	0.1%	48.6%	0.5%	0.1%	49.1%	-	-
<b>Lights</b>	6	0	6	0	12	-	5	0	0	1	6	-	2	845	3	0	850	-	0	842	2	1	845	-	1713
<b>% Lights</b>	75.0%	0%	100%	0%	75.0%	-	100%	0%	0%	100%	66.7%	-	100%	92.1%	60.0%	0%	92.0%	-	0%	92.9%	22.2%	100%	92.1%	-	91.8%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	2	0	2	-	0	29	1	0	30	-	0	26	0	0	26	-	58
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	100%	0%	22.2%	-	0%	3.2%	20.0%	0%	3.2%	-	0%	2.9%	0%	0%	2.8%	-	3.1%
<b>Buses and Single-Unit Trucks</b>	2	2	0	0	4	-	0	1	0	0	1	-	0	34	0	0	34	-	1	38	7	0	46	-	85
<b>% Buses and Single-Unit Trucks</b>	25.0%	100%	0%	0%	25.0%	-	0%	100%	0%	0%	11.1%	-	0%	3.7%	0%	0%	3.7%	-	100%	4.2%	77.8%	0%	5.0%	-	4.6%
<b>Bicycles on Road</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	9	1	0	10	-	0	0	0	0	0	-	10
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.0%	20.0%	0%	1.1%	-	0%	0%	0%	0%	0%	-	0.5%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-	-	-	-	-	7	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

03\_Kilbourn Avenue & South Car Access - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

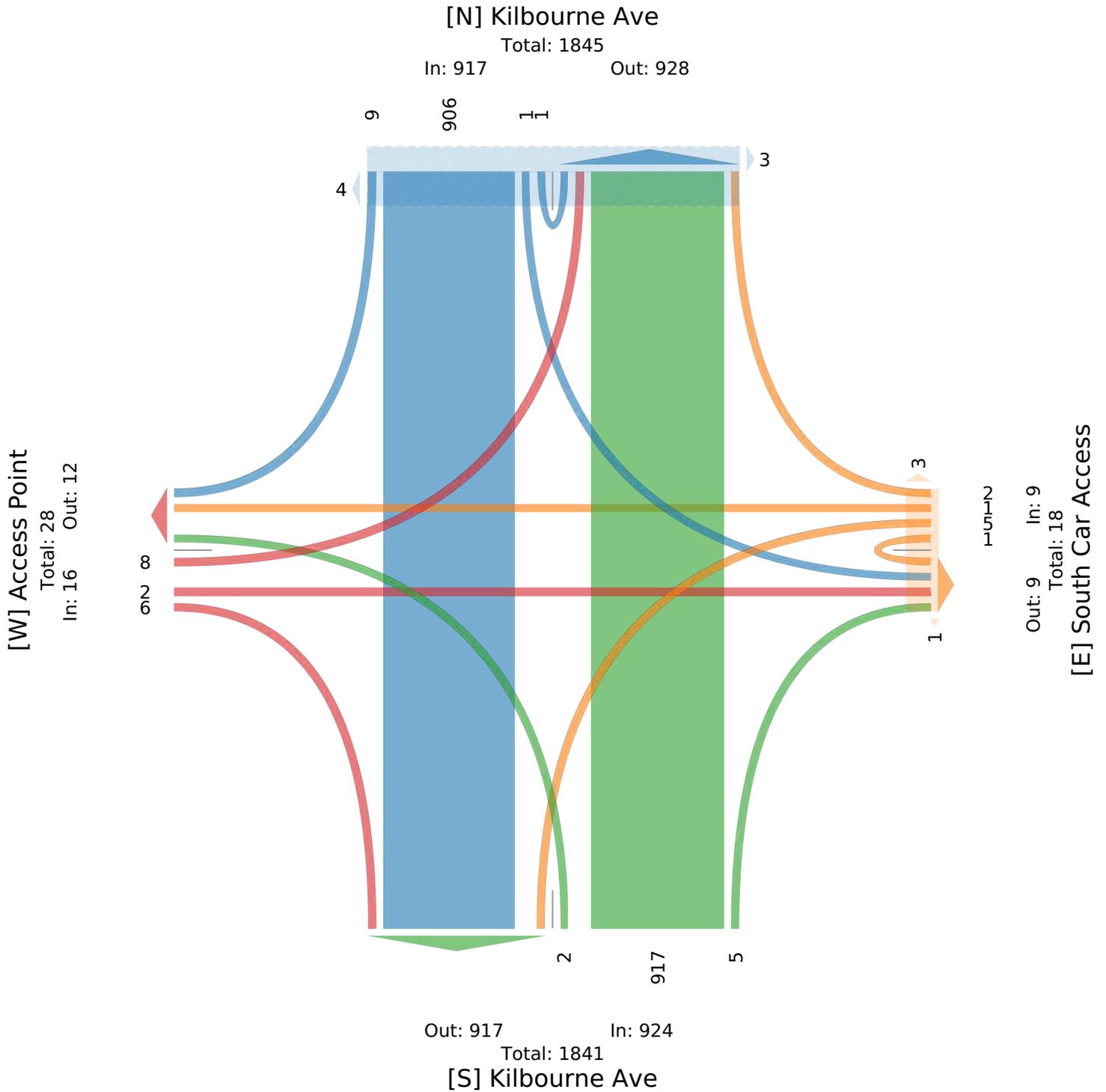
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977011, Location: 41.888298, -87.738183



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



03\_Kilbourn Avenue & South Car Access - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977011, Location: 41.888298, -87.738183



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Point Eastbound						South Car Access Westbound						Kilbourne Ave Northbound						Kilbourne Ave Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
Time																									
2022-08-10 7:30AM	1	0	0	0	1	0	1	0	0	1	2	0	0	48	0	0	48	0	0	47	0	0	47	0	98
7:45AM	0	0	0	0	0	0	0	0	0	0	0	0	1	68	1	0	70	0	0	53	0	0	53	1	123
8:00AM	0	0	0	0	0	0	0	0	0	0	0	0	0	53	0	0	53	0	0	44	0	0	44	0	97
8:15AM	0	0	0	0	0	0	1	0	0	0	1	0	0	41	1	0	42	0	0	57	0	0	57	0	100
<b>Total</b>	1	0	0	0	1	0	2	0	0	1	3	0	1	210	2	0	213	0	0	201	0	0	201	1	418
<b>% Approach</b>	100%	0%	0%	0%	-	-	66.7%	0%	0%	33.3%	-	-	0.5%	98.6%	0.9%	0%	-	-	0%	100%	0%	0%	-	-	-
<b>% Total</b>	0.2%	0%	0%	0%	0.2%	-	0.5%	0%	0%	0.2%	0.7%	-	0.2%	50.2%	0.5%	0%	51.0%	-	0%	48.1%	0%	0%	48.1%	-	-
<b>PHF</b>	0.250	-	-	-	0.250	-	0.500	-	-	0.250	0.375	-	0.250	0.769	0.500	-	0.757	-	-	0.882	-	-	0.882	-	0.848
<b>Lights</b>	0	0	0	0	0	-	2	0	0	1	3	-	1	184	1	0	186	-	0	177	0	0	177	-	366
<b>% Lights</b>	0%	0%	0%	0%	0%	-	100%	0%	0%	100%	100%	-	100%	87.6%	50.0%	0%	87.3%	-	0%	88.1%	0%	0%	88.1%	-	87.6%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	12	1	0	13	-	0	10	0	0	10	-	23
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	5.7%	50.0%	0%	6.1%	-	0%	5.0%	0%	0%	5.0%	-	5.5%
<b>Buses and Single-Unit Trucks</b>	1	0	0	0	1	-	0	0	0	0	0	-	0	10	0	0	10	-	0	14	0	0	14	-	25
<b>% Buses and Single-Unit Trucks</b>	100%	0%	0%	0%	100%	-	0%	0%	0%	0%	0%	-	0%	4.8%	0%	0%	4.7%	-	0%	7.0%	0%	0%	7.0%	-	6.0%
<b>Bicycles on Road</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	4	0	0	4	-	0	0	0	0	0	-	4
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.9%	0%	0%	1.9%	-	0%	0%	0%	0%	0%	-	1.0%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	100%
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0%

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

03\_Kilbourn Avenue & South Car Access - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

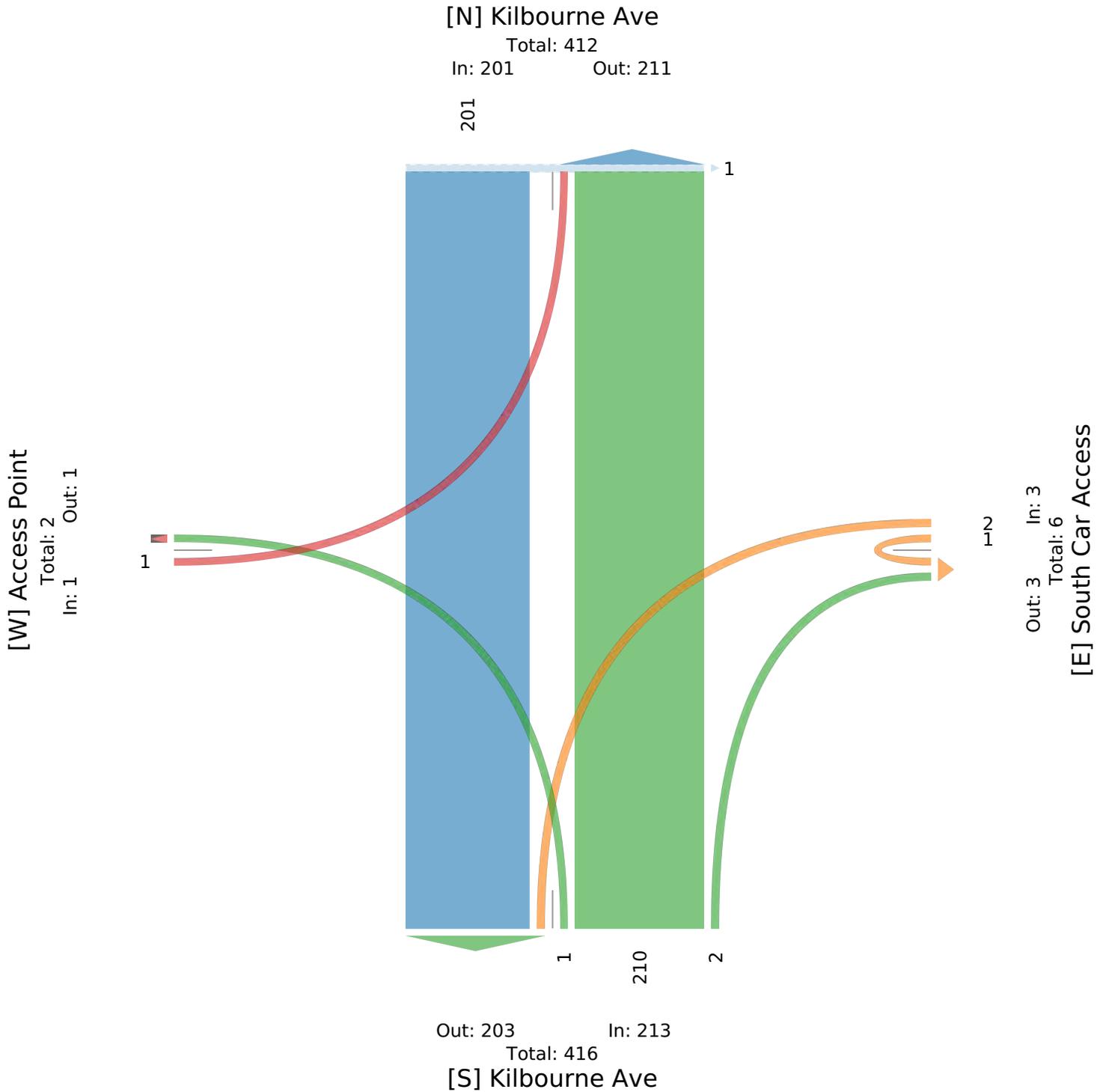
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977011, Location: 41.888298, -87.738183



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



03\_Kilbourn Avenue & South Car Access - TMC

Wed Aug 10, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977011, Location: 41.888298, -87.738183



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Access Point Eastbound						South Car Access Westbound						Kilbourne Ave Northbound						Kilbourne Ave Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 4:15PM	0	0	0	0	0	0	1	0	0	0	1	1	0	66	0	0	66	0	0	69	1	1	71	0	138
4:30PM	3	0	1	0	4	0	0	0	0	0	0	0	0	70	0	0	70	0	0	76	2	0	78	2	152
4:45PM	1	0	1	0	2	0	0	0	0	0	0	2	1	69	0	0	70	0	0	56	1	0	57	0	129
5:00PM	1	0	0	0	1	0	1	0	0	0	1	0	0	87	1	0	88	0	0	80	2	0	82	0	172
<b>Total</b>	5	0	2	0	7	0	2	0	0	0	2	3	1	292	1	0	294	0	0	281	6	1	288	2	591
<b>% Approach</b>	71.4%	0%	28.6%	0%	-	-	100%	0%	0%	0%	-	-	0.3%	99.3%	0.3%	0%	-	-	0%	97.6%	2.1%	0.3%	-	-	-
<b>% Total</b>	0.8%	0%	0.3%	0%	1.2%	-	0.3%	0%	0%	0%	0.3%	-	0.2%	49.4%	0.2%	0%	49.7%	-	0%	47.5%	1.0%	0.2%	48.7%	-	-
<b>PHF</b>	0.417	-	0.500	-	0.438	-	0.500	-	-	-	0.500	-	0.250	0.828	-	-	0.830	-	-	0.878	0.750	0.250	0.878	-	0.857
<b>Lights</b>	5	0	2	0	7	-	2	0	0	0	2	-	1	274	0	0	275	-	0	268	1	1	270	-	554
<b>% Lights</b>	100%	0%	100%	0%	100%	-	100%	0%	0%	0%	100%	-	100%	93.8%	0%	0%	93.5%	-	0%	95.4%	16.7%	100%	93.8%	-	93.7%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	4	0	0	4	-	0	4	0	0	4	-	8
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.4%	0%	0%	1.4%	-	0%	1.4%	0%	0%	1.4%	-	1.4%
<b>Buses and Single-Unit Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	10	0	0	10	-	0	9	5	0	14	-	24
<b>% Buses and Single-Unit Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	3.4%	0%	0%	3.4%	-	0%	3.2%	83.3%	0%	4.9%	-	4.1%
<b>Bicycles on Road</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	4	1	0	5	-	0	0	0	0	0	-	5
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	1.4%	100%	0%	1.7%	-	0%	0%	0%	0%	0%	-	0.8%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	0%	-	-	-	-	-	-	-	-	-	-	-	0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

03\_Kilbourn Avenue & South Car Access - TMC

Wed Aug 10, 2022

PM Peak (4:15 PM - 5:15 PM) - Overall Peak Hour

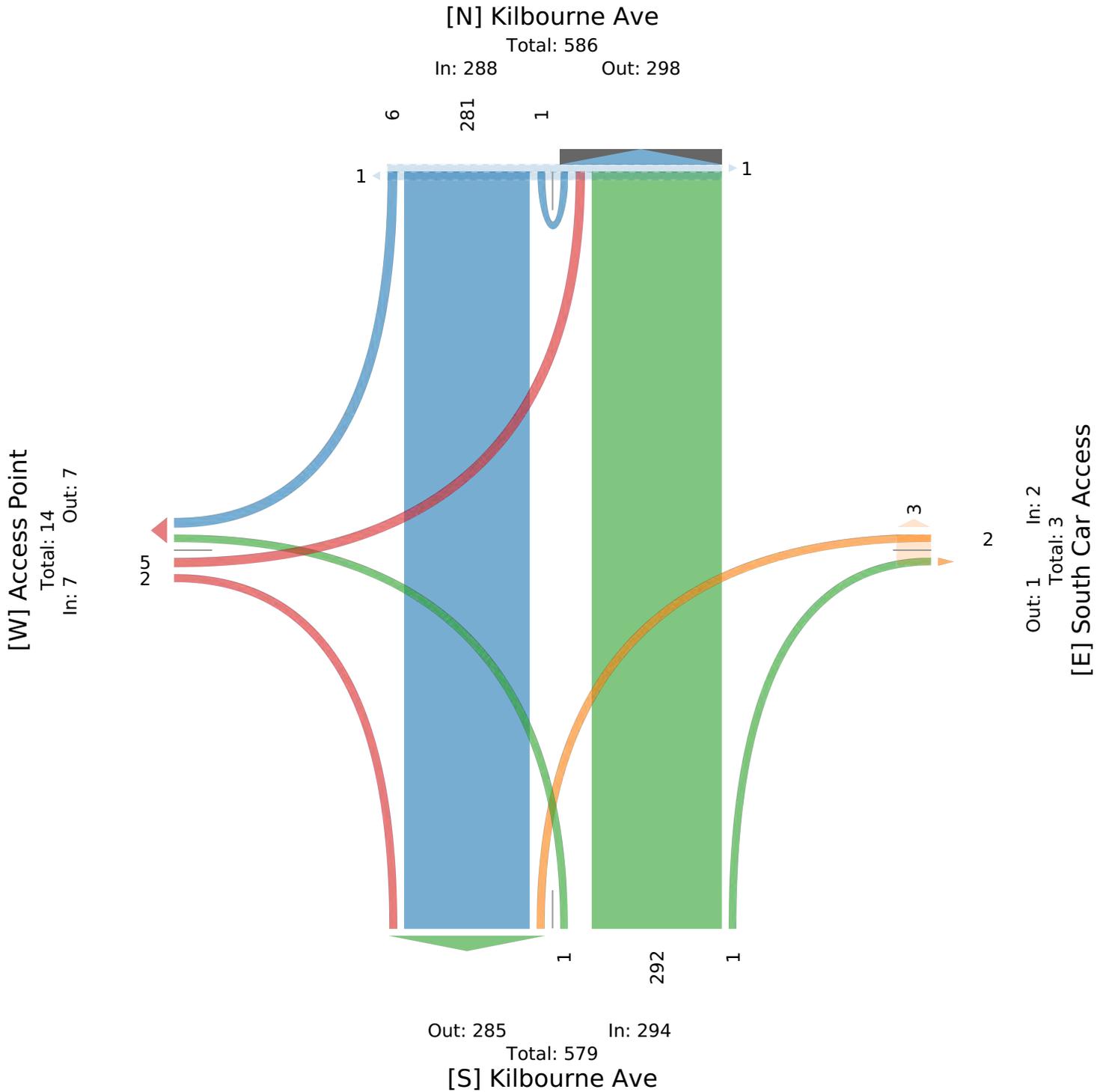
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977011, Location: 41.888298, -87.738183



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



04\_Ferdinand Street & Site Access - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977012, Location: 41.889724, -87.734322



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Eastbound						Ferdinand St Westbound						Site Access Northbound						Site Access Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 7:00AM	0	9	2	0	11	0	0	4	0	0	4	0	5	0	0	0	5	0	0	0	0	0	0	0	20
7:15AM	0	7	1	0	8	0	0	7	0	0	7	0	1	0	0	0	1	0	0	0	0	0	0	0	16
7:30AM	4	11	1	0	16	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	1	0	1	0	24
7:45AM	1	24	0	0	25	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	2	0	2	0	33
Hourly Total	5	51	4	0	60	0	0	24	0	0	24	0	6	0	0	0	6	0	0	0	3	0	3	0	93
8:00AM	1	11	0	0	12	0	0	12	0	0	12	0	1	0	0	0	1	0	1	0	0	0	1	0	26
8:15AM	0	6	0	0	6	0	0	15	0	0	15	0	0	0	0	0	0	0	0	0	1	0	1	0	22
8:30AM	0	6	0	0	6	0	1	12	0	0	13	0	0	0	0	0	0	0	0	0	0	0	0	0	19
8:45AM	1	13	0	0	14	0	0	12	0	0	12	0	1	0	0	0	1	0	0	0	1	0	1	0	28
Hourly Total	2	36	0	0	38	0	1	51	0	0	52	0	2	0	0	0	2	0	1	0	2	0	3	0	95
4:00PM	0	5	0	0	5	0	0	11	0	0	11	0	1	0	0	0	1	0	0	0	0	0	0	0	17
4:15PM	0	4	1	0	5	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	1	0	1	0	11
4:30PM	1	6	0	0	7	0	0	11	0	0	11	0	0	0	0	0	0	0	0	0	1	0	1	0	19
4:45PM	0	4	1	0	5	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	8
Hourly Total	1	19	2	0	22	0	0	30	0	0	30	0	1	0	0	0	1	0	0	0	2	0	2	0	55
5:00PM	0	2	2	0	4	0	0	6	0	0	6	0	1	0	0	0	1	0	0	0	0	0	0	0	11
5:15PM	0	4	2	0	6	0	0	5	0	0	5	0	1	0	0	0	1	0	0	0	0	0	0	0	12
5:30PM	0	7	2	0	9	0	0	4	0	0	4	0	1	0	0	0	1	0	0	0	0	0	0	0	14
5:45PM	0	8	0	0	8	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	9
Hourly Total	0	21	6	0	27	0	0	16	0	0	16	0	3	0	0	0	3	0	0	0	0	0	0	0	46
<b>Total</b>	<b>8</b>	<b>127</b>	<b>12</b>	<b>0</b>	<b>147</b>	<b>0</b>	<b>1</b>	<b>121</b>	<b>0</b>	<b>0</b>	<b>122</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>12</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>7</b>	<b>0</b>	<b>8</b>	<b>0</b>	<b>289</b>
<b>% Approach</b>	5.4%	86.4%	8.2%	0%	-	-	0.8%	99.2%	0%	0%	-	-	100%	0%	0%	0%	-	-	12.5%	0%	87.5%	0%	-	-	-
<b>% Total</b>	2.8%	43.9%	4.2%	0%	50.9%	-	0.3%	41.9%	0%	0%	42.2%	-	4.2%	0%	0%	0%	4.2%	-	0.3%	0%	2.4%	0%	2.8%	-	-
<b>Lights</b>	7	100	2	0	109	-	0	87	0	0	87	-	1	0	0	0	1	-	0	0	6	0	6	-	203
<b>% Lights</b>	87.5%	78.7%	16.7%	0%	74.1%	-	0%	71.9%	0%	0%	71.3%	-	8.3%	0%	0%	0%	8.3%	-	0%	0%	85.7%	0%	75.0%	-	70.2%
<b>Articulated Trucks</b>	0	9	7	0	16	-	1	10	0	0	11	-	9	0	0	0	9	-	0	0	0	0	0	-	36
<b>% Articulated Trucks</b>	0%	7.1%	58.3%	0%	10.9%	-	100%	8.3%	0%	0%	9.0%	-	75.0%	0%	0%	0%	75.0%	-	0%	0%	0%	0%	0%	-	12.5%
<b>Buses and Single-Unit Trucks</b>	1	16	3	0	20	-	0	24	0	0	24	-	2	0	0	0	2	-	1	0	1	0	2	-	48
<b>% Buses and Single-Unit Trucks</b>	12.5%	12.6%	25.0%	0%	13.6%	-	0%	19.8%	0%	0%	19.7%	-	16.7%	0%	0%	0%	16.7%	-	100%	0%	14.3%	0%	25.0%	-	16.6%
<b>Bicycles on Road</b>	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	2
<b>% Bicycles on Road</b>	0%	1.6%	0%	0%	1.4%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.7%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

04\_Ferdinand Street & Site Access - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977012, Location: 41.889724, -87.734322



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

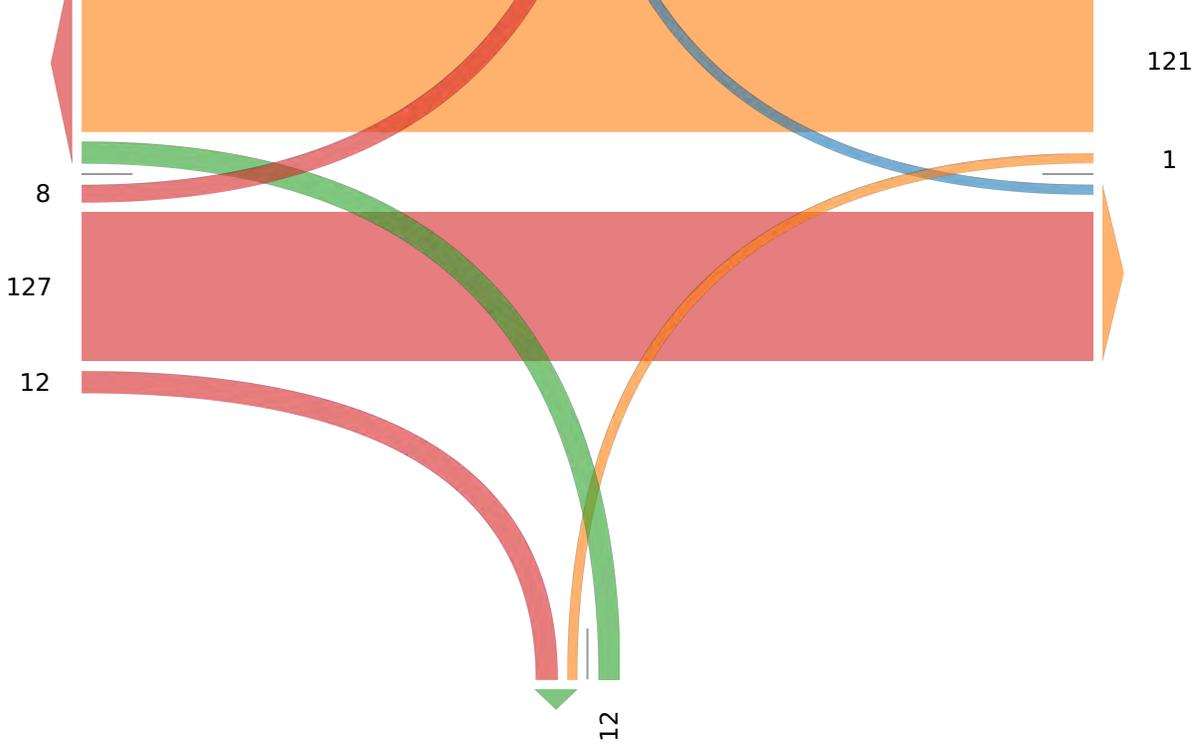
[N] Site Access

Total: 16

In: 8 Out: 8

7 1

[W] Ferdinand St  
Total: 287  
In: 147 Out: 140



Out: 128 In: 122  
Total: 250  
[E] Ferdinand St

Out: 13 In: 12

Total: 25

[S] Site Access

04\_Ferdinand Street & Site Access - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977012, Location: 41.889724, -87.734322



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Eastbound						Ferdinand St Westbound						Site Access Northbound						Site Access Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 7:30AM	4	11	1	0	16	0	0	7	0	0	7	0	0	0	0	0	0	0	0	0	1	0	1	0	24
7:45AM	1	24	0	0	25	0	0	6	0	0	6	0	0	0	0	0	0	0	0	0	2	0	2	0	33
8:00AM	1	11	0	0	12	0	0	12	0	0	12	0	1	0	0	0	1	0	1	0	0	0	1	0	26
8:15AM	0	6	0	0	6	0	0	15	0	0	15	0	0	0	0	0	0	0	0	0	1	0	1	0	22
<b>Total</b>	6	52	1	0	59	0	0	40	0	0	40	0	1	0	0	0	1	0	1	0	4	0	5	0	105
<b>% Approach</b>	10.2%	88.1%	1.7%	0%	-	-	0%	100%	0%	0%	-	-	100%	0%	0%	0%	-	-	20.0%	0%	80.0%	0%	-	-	-
<b>% Total</b>	5.7%	49.5%	1.0%	0%	56.2%	-	0%	38.1%	0%	0%	38.1%	-	1.0%	0%	0%	0%	1.0%	-	1.0%	0%	3.8%	0%	4.8%	-	-
<b>PHF</b>	0.375	0.542	0.250	-	0.590	-	-	0.667	-	-	0.667	-	0.250	-	-	-	0.250	-	0.250	-	0.500	-	0.625	-	0.795
<b>Lights</b>	5	41	1	0	47	-	0	25	0	0	25	-	0	0	0	0	0	-	0	0	3	0	3	-	75
<b>% Lights</b>	83.3%	78.8%	100%	0%	79.7%	-	0%	62.5%	0%	0%	62.5%	-	0%	0%	0%	0%	0%	-	0%	0%	75.0%	0%	60.0%	-	71.4%
<b>Articulated Trucks</b>	0	5	0	0	5	-	0	2	0	0	2	-	0	0	0	0	0	-	0	0	0	0	0	-	7
<b>% Articulated Trucks</b>	0%	9.6%	0%	0%	8.5%	-	0%	5.0%	0%	0%	5.0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	6.7%
<b>Buses and Single-Unit Trucks</b>	1	6	0	0	7	-	0	13	0	0	13	-	1	0	0	0	1	-	1	0	1	0	2	-	23
<b>% Buses and Single-Unit Trucks</b>	16.7%	11.5%	0%	0%	11.9%	-	0%	32.5%	0%	0%	32.5%	-	100%	0%	0%	0%	100%	-	100%	0%	25.0%	0%	40.0%	-	21.9%
<b>Bicycles on Road</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0
<b>% Bicycles on Road</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

04\_Ferdinand Street & Site Access - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM) - Overall Peak Hour

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977012, Location: 41.889724, -87.734322



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

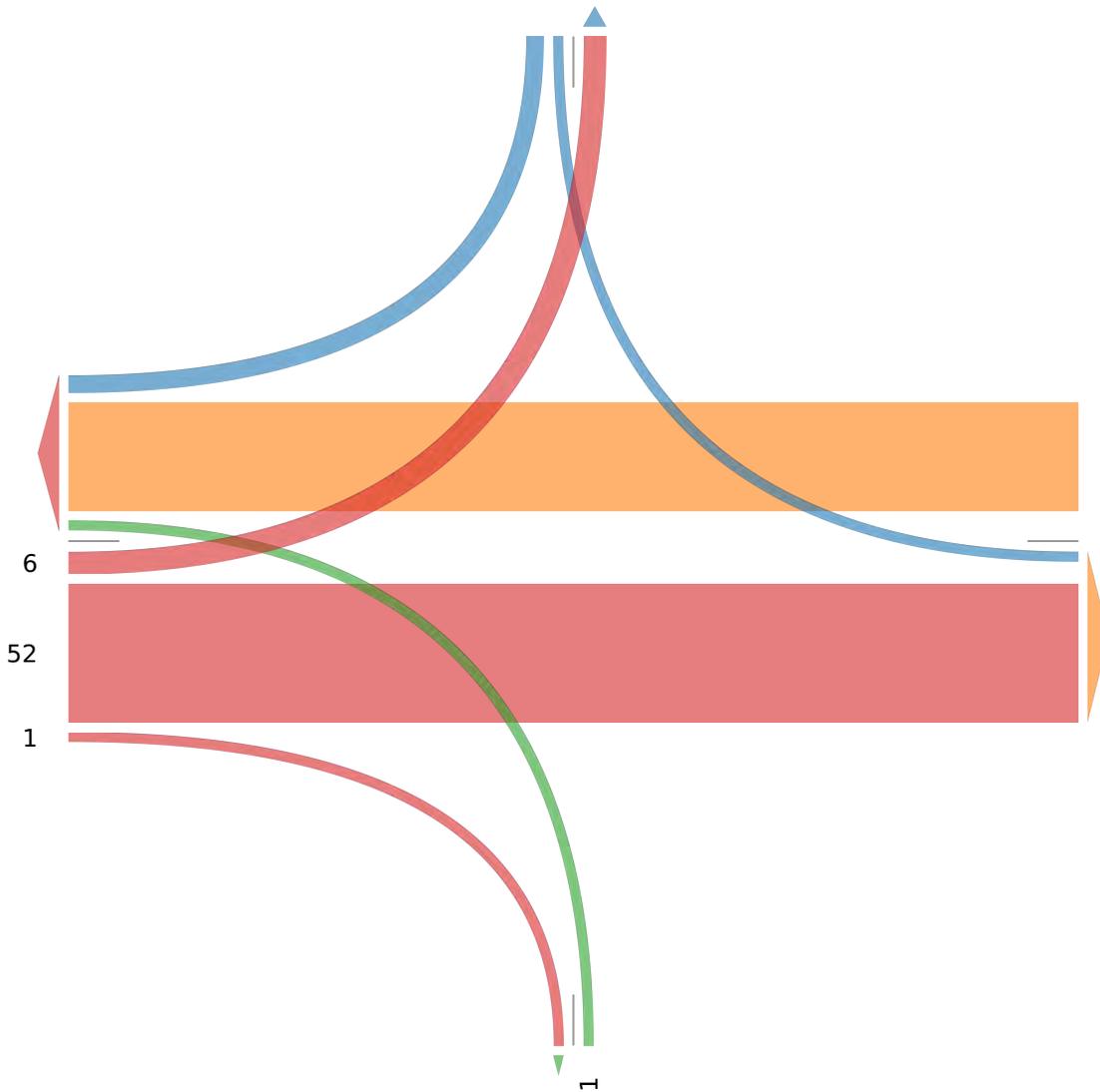
[N] Site Access

Total: 11

In: 5 Out: 6

4 1

[W] Ferdinand St  
Total: 104  
In: 59 Out: 45



40

Out: 53 In: 40  
Total: 93

[E] Ferdinand St

Out: 1 In: 1

Total: 2

[S] Site Access

04\_Ferdinand Street & Site Access - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977012, Location: 41.889724, -87.734322



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Eastbound						Ferdinand St Westbound						Site Access Northbound						Site Access Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 4:15PM	0	4	1	0	5	0	0	5	0	0	5	0	0	0	0	0	0	0	0	0	1	0	1	0	11
4:30PM	1	6	0	0	7	0	0	11	0	0	11	0	0	0	0	0	0	0	0	0	1	0	1	0	19
4:45PM	0	4	1	0	5	0	0	3	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	8
5:00PM	0	2	2	0	4	0	0	6	0	0	6	0	1	0	0	0	1	0	0	0	0	0	0	0	11
<b>Total</b>	1	16	4	0	21	0	0	25	0	0	25	0	1	0	0	0	1	0	0	0	2	0	2	0	49
<b>% Approach</b>	4.8%	76.2%	19.0%	0%	-	-	0%	100%	0%	0%	-	-	100%	0%	0%	0%	-	-	0%	0%	100%	0%	-	-	-
<b>% Total</b>	2.0%	32.7%	8.2%	0%	42.9%	-	0%	51.0%	0%	0%	51.0%	-	2.0%	0%	0%	0%	2.0%	-	0%	0%	4.1%	0%	4.1%	-	-
<b>PHF</b>	0.250	0.750	0.500	-	0.833	-	-	0.568	-	-	0.568	-	0.250	-	-	-	0.250	-	-	-	0.500	-	0.500	-	0.667
<b>Lights</b>	1	9	1	0	11	-	0	21	0	0	21	-	1	0	0	0	1	-	0	0	2	0	2	-	35
<b>% Lights</b>	100%	56.3%	25.0%	0%	52.4%	-	0%	84.0%	0%	0%	84.0%	-	100%	0%	0%	0%	100%	-	0%	0%	100%	0%	100%	-	71.4%
<b>Articulated Trucks</b>	0	2	2	0	4	-	0	3	0	0	3	-	0	0	0	0	0	-	0	0	0	0	0	-	7
<b>% Articulated Trucks</b>	0%	12.5%	50.0%	0%	19.0%	-	0%	12.0%	0%	0%	12.0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	14.3%
<b>Buses and Single-Unit Trucks</b>	0	4	1	0	5	-	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	6
<b>% Buses and Single-Unit Trucks</b>	0%	25.0%	25.0%	0%	23.8%	-	0%	4.0%	0%	0%	4.0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	12.2%
<b>Bicycles on Road</b>	0	1	0	0	1	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	1
<b>% Bicycles on Road</b>	0%	6.3%	0%	0%	4.8%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	2.0%
<b>Pedestrians</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

04\_Ferdinand Street & Site Access - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977012, Location: 41.889724, -87.734322



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Site Access

Total: 3

In: 2 Out: 1

2

[W] Ferdinand St

Total: 49

Out: 28

In: 21

1

16

4

25

In: 25

Total: 41

Out: 16

[E] Ferdinand St

Out: 4 In: 1

Total: 5

[S] Site Access

1

05\_Ferdinand Street & Fleet Management Drive... - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977013, Location: 41.889746, -87.733332



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Eastbound					Ferdinand St Westbound					Fleet Management Driveway Northbound					Int
	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	
Time																
2022-08-10 7:00AM	8	0	0	8	0	0	4	0	4	0	1	0	0	1	0	13
7:15AM	7	0	0	7	0	0	6	0	6	0	0	0	0	0	0	13
7:30AM	7	1	1	9	0	0	4	0	4	0	2	0	0	2	0	15
7:45AM	16	2	0	18	0	1	7	0	8	0	0	1	0	1	0	27
Hourly Total	38	3	1	42	0	1	21	0	22	0	3	1	0	4	0	68
8:00AM	8	1	0	9	0	0	12	0	12	0	0	0	0	0	0	21
8:15AM	5	0	0	5	0	0	10	0	10	0	3	0	0	3	0	18
8:30AM	4	2	0	6	0	0	11	0	11	0	1	1	0	2	0	19
8:45AM	9	3	0	12	0	1	7	0	8	0	4	1	0	5	0	25
Hourly Total	26	6	0	32	0	1	40	0	41	0	8	2	0	10	0	83
4:00PM	5	0	0	5	0	0	10	0	10	0	0	0	0	0	0	15
4:15PM	3	0	1	4	0	0	5	0	5	0	0	0	0	0	0	9
4:30PM	6	0	0	6	0	1	3	0	4	0	1	1	0	2	0	12
4:45PM	4	0	0	4	0	0	3	0	3	0	0	0	0	0	0	7
Hourly Total	18	0	1	19	0	1	21	0	22	0	1	1	0	2	0	43
5:00PM	1	1	0	2	0	0	3	0	3	0	0	0	0	0	0	5
5:15PM	4	0	0	4	0	0	4	0	4	0	1	0	0	1	0	9
5:30PM	7	0	0	7	0	0	3	0	3	0	1	0	0	1	0	11
5:45PM	8	0	0	8	0	0	2	0	2	0	0	0	0	0	0	10
Hourly Total	20	1	0	21	0	0	12	0	12	0	2	0	0	2	0	35
<b>Total</b>	102	10	2	114	0	3	94	0	97	0	14	4	0	18	0	229
<b>% Approach</b>	89.5%	8.8%	1.8%	-	-	3.1%	96.9%	0%	-	-	77.8%	22.2%	0%	-	-	-
<b>% Total</b>	44.5%	4.4%	0.9%	49.8%	-	1.3%	41.0%	0%	42.4%	-	6.1%	1.7%	0%	7.9%	-	-
<b>Lights</b>	79	8	0	87	-	2	73	0	75	-	8	3	0	11	-	173
<b>% Lights</b>	77.5%	80.0%	0%	76.3%	-	66.7%	77.7%	0%	77.3%	-	57.1%	75.0%	0%	61.1%	-	75.5%
<b>Articulated Trucks</b>	8	0	1	9	-	0	9	0	9	-	0	0	0	0	-	18
<b>% Articulated Trucks</b>	7.8%	0%	50.0%	7.9%	-	0%	9.6%	0%	9.3%	-	0%	0%	0%	0%	-	7.9%
<b>Buses and Single-Unit Trucks</b>	13	2	1	16	-	1	12	0	13	-	6	1	0	7	-	36
<b>% Buses and Single-Unit Trucks</b>	12.7%	20.0%	50.0%	14.0%	-	33.3%	12.8%	0%	13.4%	-	42.9%	25.0%	0%	38.9%	-	15.7%
<b>Bicycles on Road</b>	2	0	0	2	-	0	0	0	0	-	0	0	0	0	-	2
<b>% Bicycles on Road</b>	2.0%	0%	0%	1.8%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0.9%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

05\_Ferdinand Street & Fleet Management Drive... - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

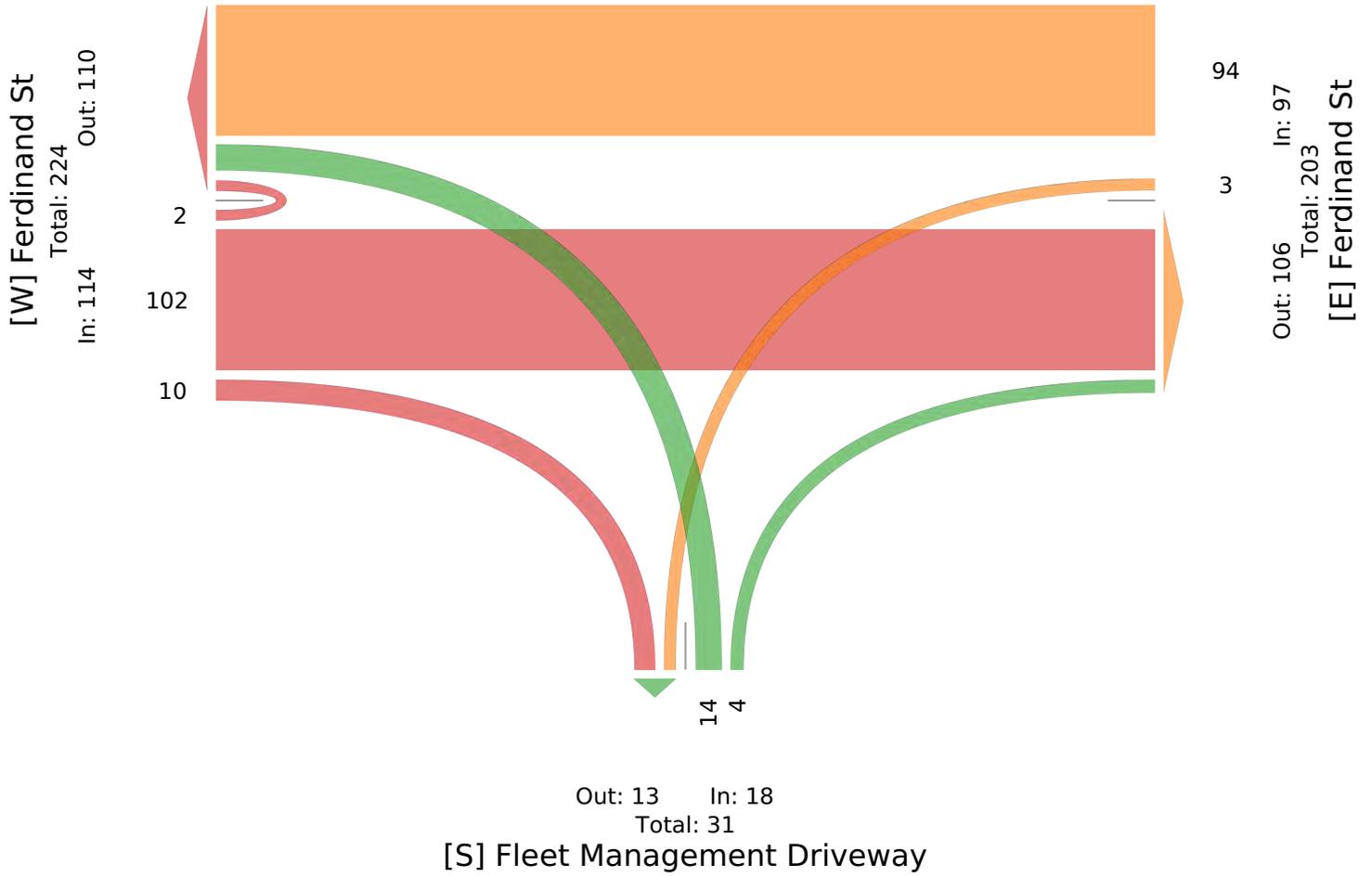
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977013, Location: 41.889746, -87.733332



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



05\_Ferdinand Street & Fleet Management Drive... - TMC

Wed Aug 10, 2022

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977013, Location: 41.889746, -87.733332



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Eastbound					Ferdinand St Westbound					Fleet Management Driveway Northbound					Int
	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	
Time																
2022-08-10 7:30AM	7	1	1	9	0	0	4	0	4	0	2	0	0	2	0	15
7:45AM	16	2	0	18	0	1	7	0	8	0	0	1	0	1	0	27
8:00AM	8	1	0	9	0	0	12	0	12	0	0	0	0	0	0	21
8:15AM	5	0	0	5	0	0	10	0	10	0	3	0	0	3	0	18
<b>Total</b>	36	4	1	41	0	1	33	0	34	0	5	1	0	6	0	81
<b>% Approach</b>	87.8%	9.8%	2.4%	-	-	2.9%	97.1%	0%	-	-	83.3%	16.7%	0%	-	-	-
<b>% Total</b>	44.4%	4.9%	1.2%	50.6%	-	1.2%	40.7%	0%	42.0%	-	6.2%	1.2%	0%	7.4%	-	-
<b>PHF</b>	0.563	0.500	0.250	0.569	-	0.250	0.688	-	0.708	-	0.417	0.250	-	0.500	-	0.750
<b>Lights</b>	27	3	0	30	-	1	25	0	26	-	3	1	0	4	-	60
<b>% Lights</b>	75.0%	75.0%	0%	73.2%	-	100%	75.8%	0%	76.5%	-	60.0%	100%	0%	66.7%	-	74.1%
<b>Articulated Trucks</b>	5	0	0	5	-	0	2	0	2	-	0	0	0	0	-	7
<b>% Articulated Trucks</b>	13.9%	0%	0%	12.2%	-	0%	6.1%	0%	5.9%	-	0%	0%	0%	0%	-	8.6%
<b>Buses and Single-Unit Trucks</b>	4	1	1	6	-	0	6	0	6	-	2	0	0	2	-	14
<b>% Buses and Single-Unit Trucks</b>	11.1%	25.0%	100%	14.6%	-	0%	18.2%	0%	17.6%	-	40.0%	0%	0%	33.3%	-	17.3%
<b>Bicycles on Road</b>	0	0	0	0	-	0	0	0	0	-	0	0	0	0	-	0
<b>% Bicycles on Road</b>	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	0%
<b>Pedestrians</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

05\_Ferdinand Street & Fleet Management Drive... - TMC

Wed Aug 10, 2022

Forced Peak (7:30 AM - 8:30 AM)

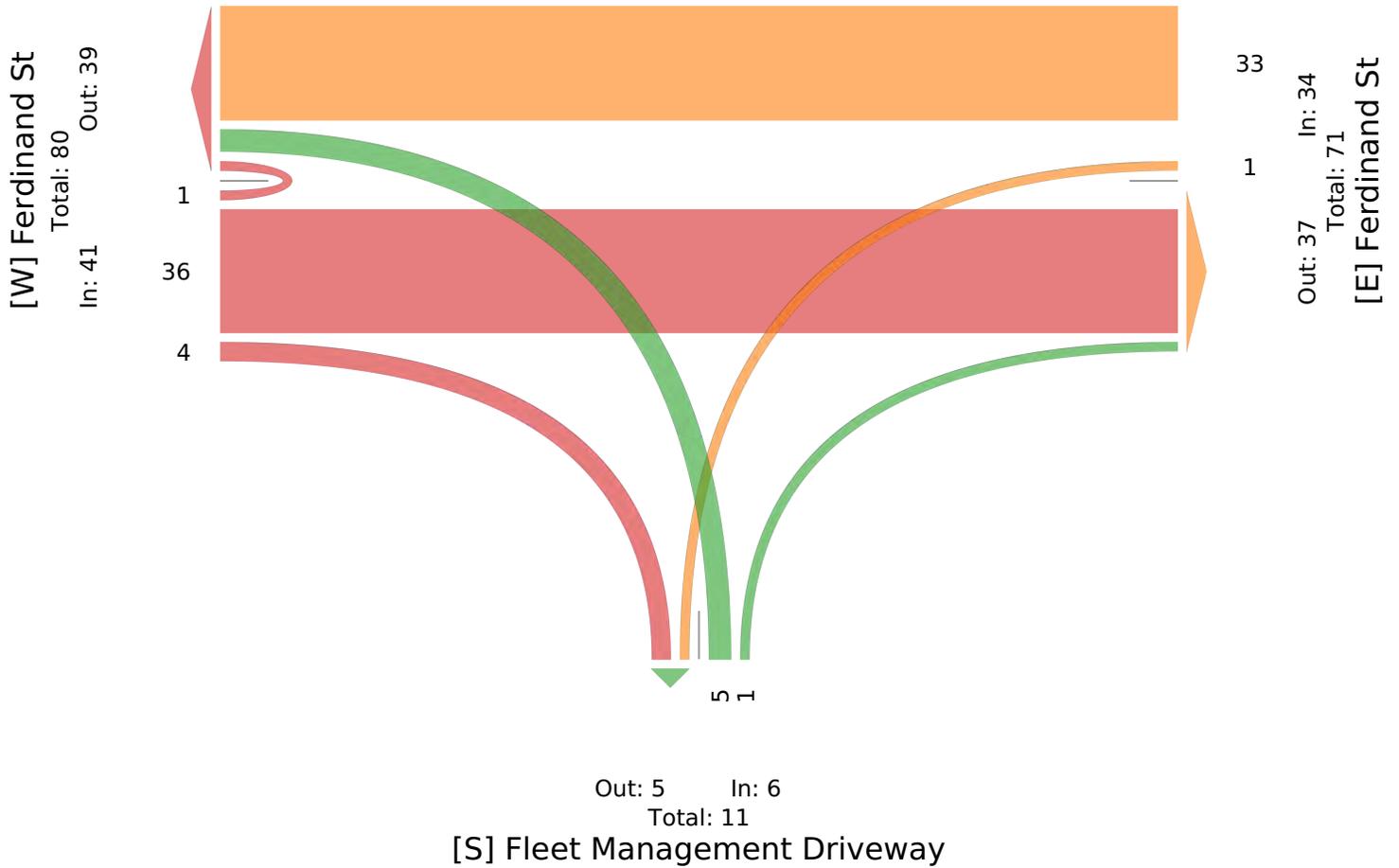
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977013, Location: 41.889746, -87.733332



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



05\_Ferdinand Street & Fleet Management Drive... - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977013, Location: 41.889746, -87.733332



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Ferdinand St Eastbound					Ferdinand St Westbound					Fleet Management Driveway Northbound					Int
	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	
2022-08-10 4:15PM	3	0	1	4	0	0	5	0	5	0	0	0	0	0	0	9
4:30PM	6	0	0	6	0	1	3	0	4	0	1	1	0	2	0	12
4:45PM	4	0	0	4	0	0	3	0	3	0	0	0	0	0	0	7
5:00PM	1	1	0	2	0	0	3	0	3	0	0	0	0	0	0	5
<b>Total</b>	14	1	1	16	0	1	14	0	15	0	1	1	0	2	0	33
<b>% Approach</b>	87.5%	6.3%	6.3%	-	-	6.7%	93.3%	0%	-	-	50.0%	50.0%	0%	-	-	-
<b>% Total</b>	42.4%	3.0%	3.0%	48.5%	-	3.0%	42.4%	0%	45.5%	-	3.0%	3.0%	0%	6.1%	-	-
<b>PHF</b>	0.650	0.250	0.250	0.750	-	0.250	0.700	-	0.750	-	0.250	0.250	-	0.250	-	0.727
<b>Lights</b>	8	1	0	9	-	1	11	0	12	-	1	1	0	2	-	23
<b>% Lights</b>	57.1%	100%	0%	56.3%	-	100%	78.6%	0%	80.0%	-	100%	100%	0%	100%	-	69.7%
<b>Articulated Trucks</b>	1	0	1	2	-	0	2	0	2	-	0	0	0	0	-	4
<b>% Articulated Trucks</b>	7.1%	0%	100%	12.5%	-	0%	14.3%	0%	13.3%	-	0%	0%	0%	0%	-	12.1%
<b>Buses and Single-Unit Trucks</b>	4	0	0	4	-	0	1	0	1	-	0	0	0	0	-	5
<b>% Buses and Single-Unit Trucks</b>	28.6%	0%	0%	25.0%	-	0%	7.1%	0%	6.7%	-	0%	0%	0%	0%	-	15.2%
<b>Bicycles on Road</b>	1	0	0	1	-	0	0	0	0	-	0	0	0	0	-	1
<b>% Bicycles on Road</b>	7.1%	0%	0%	6.3%	-	0%	0%	0%	0%	-	0%	0%	0%	0%	-	3.0%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

05\_Ferdinand Street & Fleet Management Drive... - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

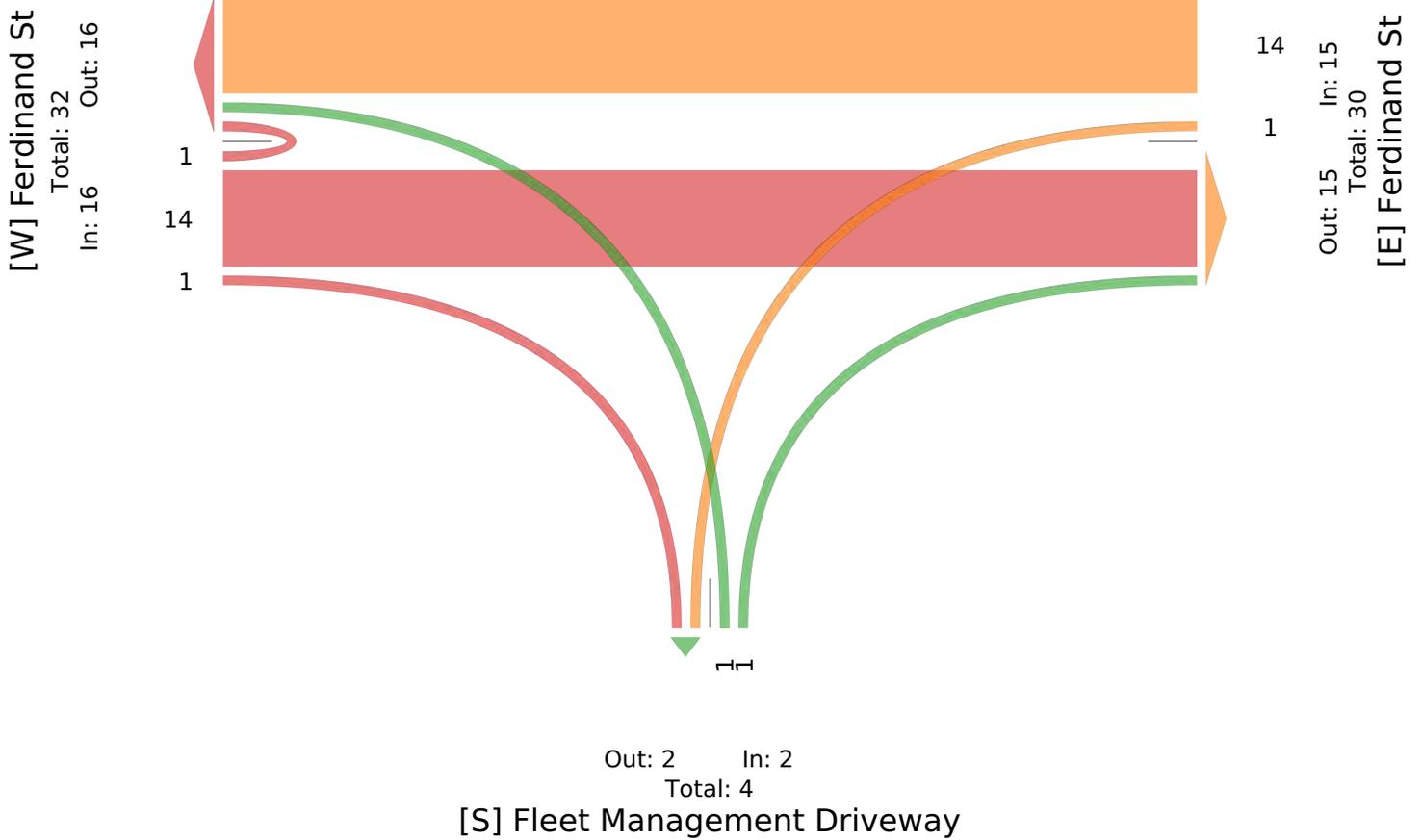
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977013, Location: 41.889746, -87.733332



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



06\_Chicago Avenue & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977014, Location: 41.895094, -87.740799



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Chicago Ave Eastbound					Chicago Ave Westbound					Kilbourne Ave Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2022-08-10 7:00AM	94	36	0	130	0	19	64	0	83	0	16	17	0	33	0	246
7:15AM	108	33	0	141	0	20	51	0	71	0	15	18	0	33	0	245
7:30AM	106	36	0	142	0	23	92	0	115	0	24	19	0	43	0	300
7:45AM	109	41	0	150	0	17	73	0	90	0	21	27	0	48	0	288
Hourly Total	417	146	0	563	0	79	280	0	359	0	76	81	0	157	0	1079
8:00AM	115	28	0	143	0	19	75	0	94	0	16	13	0	29	0	266
8:15AM	118	29	0	147	0	21	83	0	104	0	23	19	0	42	0	293
8:30AM	109	28	0	137	0	15	81	0	96	0	23	20	0	43	0	276
8:45AM	103	23	0	126	0	13	60	0	73	0	23	17	0	40	0	239
Hourly Total	445	108	0	553	0	68	299	0	367	0	85	69	0	154	0	1074
4:00PM	95	41	0	136	0	29	146	0	175	0	32	29	0	61	0	372
4:15PM	100	37	0	137	0	28	179	0	207	0	38	30	0	68	0	412
4:30PM	131	40	0	171	0	23	192	0	215	0	45	36	0	81	1	467
4:45PM	103	30	0	133	0	29	178	0	207	0	37	36	0	73	1	413
Hourly Total	429	148	0	577	0	109	695	0	804	0	152	131	0	283	2	1664
5:00PM	118	39	0	157	0	31	210	0	241	0	47	47	0	94	0	492
5:15PM	128	25	0	153	0	24	179	0	203	0	46	26	0	72	0	428
5:30PM	111	33	0	144	0	27	198	0	225	0	45	23	0	68	0	437
5:45PM	110	31	0	141	0	32	174	0	206	0	36	17	0	53	0	400
Hourly Total	467	128	0	595	0	114	761	0	875	0	174	113	0	287	0	1757
<b>Total</b>	1758	530	0	2288	0	370	2035	0	2405	0	487	394	0	881	2	5574
<b>% Approach</b>	76.8%	23.2%	0%	-	-	15.4%	84.6%	0%	-	-	55.3%	44.7%	0%	-	-	-
<b>% Total</b>	31.5%	9.5%	0%	41.0%	-	6.6%	36.5%	0%	43.1%	-	8.7%	7.1%	0%	15.8%	-	-
<b>Lights</b>	1663	490	0	2153	-	348	1926	0	2274	-	442	367	0	809	-	5236
<b>% Lights</b>	94.6%	92.5%	0%	94.1%	-	94.1%	94.6%	0%	94.6%	-	90.8%	93.1%	0%	91.8%	-	93.9%
<b>Articulated Trucks</b>	12	18	0	30	-	5	7	0	12	-	21	6	0	27	-	69
<b>% Articulated Trucks</b>	0.7%	3.4%	0%	1.3%	-	1.4%	0.3%	0%	0.5%	-	4.3%	1.5%	0%	3.1%	-	1.2%
<b>Buses and Single-Unit Trucks</b>	78	21	0	99	-	17	97	0	114	-	19	19	0	38	-	251
<b>% Buses and Single-Unit Trucks</b>	4.4%	4.0%	0%	4.3%	-	4.6%	4.8%	0%	4.7%	-	3.9%	4.8%	0%	4.3%	-	4.5%
<b>Bicycles on Road</b>	5	1	0	6	-	0	5	0	5	-	5	2	0	7	-	18
<b>% Bicycles on Road</b>	0.3%	0.2%	0%	0.3%	-	0%	0.2%	0%	0.2%	-	1.0%	0.5%	0%	0.8%	-	0.3%
Pedestrians	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0%
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0%

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

06\_Chicago Avenue & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

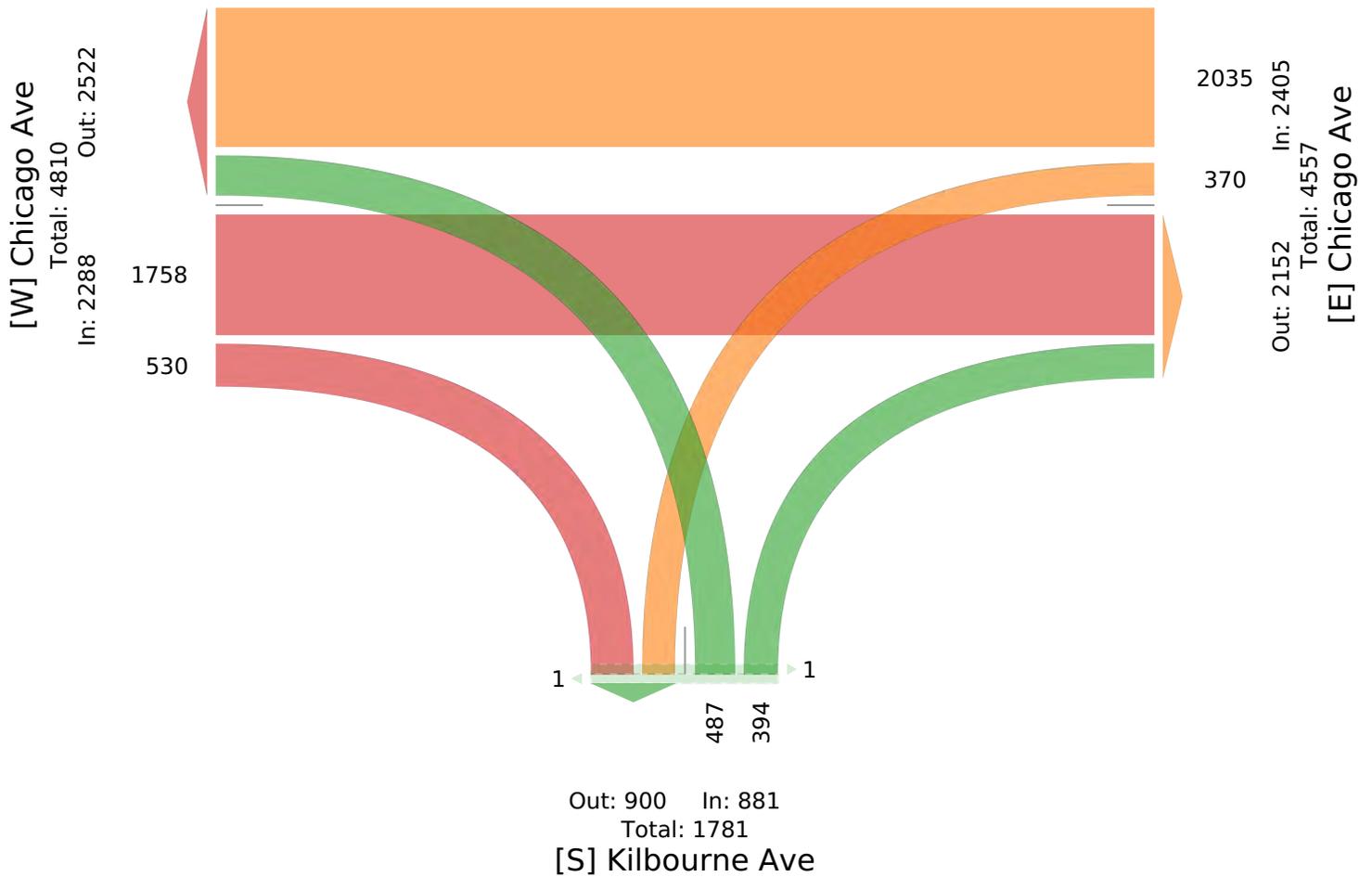
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977014, Location: 41.895094, -87.740799



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



06\_Chicago Avenue & Kilbourn Avenue - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977014, Location: 41.895094, -87.740799



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Chicago Ave Eastbound					Chicago Ave Westbound					Kilbourne Ave Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2022-08-10 7:30AM	106	36	0	142	0	23	92	0	115	0	24	19	0	43	0	300
7:45AM	109	41	0	150	0	17	73	0	90	0	21	27	0	48	0	288
8:00AM	115	28	0	143	0	19	75	0	94	0	16	13	0	29	0	266
8:15AM	118	29	0	147	0	21	83	0	104	0	23	19	0	42	0	293
<b>Total</b>	448	134	0	582	0	80	323	0	403	0	84	78	0	162	0	1147
<b>% Approach</b>	77.0%	23.0%	0%	-	-	19.9%	80.1%	0%	-	-	51.9%	48.1%	0%	-	-	-
<b>% Total</b>	39.1%	11.7%	0%	50.7%	-	7.0%	28.2%	0%	35.1%	-	7.3%	6.8%	0%	14.1%	-	-
<b>PHF</b>	0.947	0.817	-	0.968	-	0.870	0.872	-	0.872	-	0.865	0.722	-	0.856	-	0.956
<b>Lights</b>	413	119	0	532	-	73	281	0	354	-	71	67	0	138	-	1024
<b>% Lights</b>	92.2%	88.8%	0%	91.4%	-	91.3%	87.0%	0%	87.8%	-	84.5%	85.9%	0%	85.2%	-	89.3%
<b>Articulated Trucks</b>	8	10	0	18	-	2	4	0	6	-	6	4	0	10	-	34
<b>% Articulated Trucks</b>	1.8%	7.5%	0%	3.1%	-	2.5%	1.2%	0%	1.5%	-	7.1%	5.1%	0%	6.2%	-	3.0%
<b>Buses and Single-Unit Trucks</b>	26	5	0	31	-	5	36	0	41	-	6	7	0	13	-	85
<b>% Buses and Single-Unit Trucks</b>	5.8%	3.7%	0%	5.3%	-	6.3%	11.1%	0%	10.2%	-	7.1%	9.0%	0%	8.0%	-	7.4%
<b>Bicycles on Road</b>	1	0	0	1	-	0	2	0	2	-	1	0	0	1	-	4
<b>% Bicycles on Road</b>	0.2%	0%	0%	0.2%	-	0%	0.6%	0%	0.5%	-	1.2%	0%	0%	0.6%	-	0.3%
<b>Pedestrians</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

06\_Chicago Avenue & Kilbourn Avenue - TMC

Wed Aug 10, 2022

AM Peak (7:30 AM - 8:30 AM)

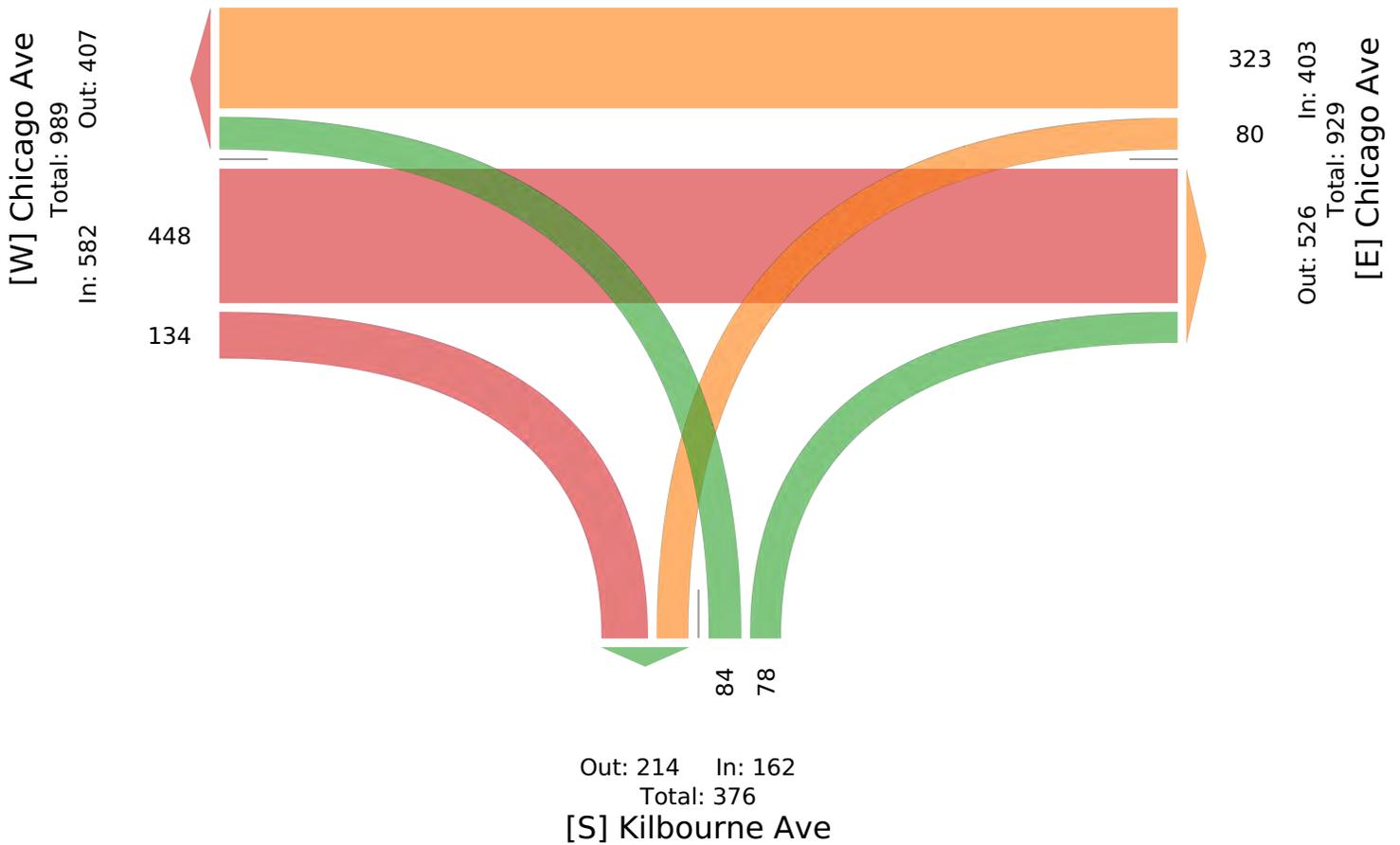
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977014, Location: 41.895094, -87.740799



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



06\_Chicago Avenue & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977014, Location: 41.895094, -87.740799



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Chicago Ave Eastbound					Chicago Ave Westbound					Kilbourne Ave Northbound					
Time	T	R	U	App	Ped*	L	T	U	App	Ped*	L	R	U	App	Ped*	Int
2022-08-10 4:15PM	100	37	0	137	0	28	179	0	207	0	38	30	0	68	0	412
4:30PM	131	40	0	171	0	23	192	0	215	0	45	36	0	81	1	467
4:45PM	103	30	0	133	0	29	178	0	207	0	37	36	0	73	1	413
5:00PM	118	39	0	157	0	31	210	0	241	0	47	47	0	94	0	492
<b>Total</b>	452	146	0	598	0	111	759	0	870	0	167	149	0	316	2	1784
<b>% Approach</b>	75.6%	24.4%	0%	-	-	12.8%	87.2%	0%	-	-	52.8%	47.2%	0%	-	-	-
<b>% Total</b>	25.3%	8.2%	0%	33.5%	-	6.2%	42.5%	0%	48.8%	-	9.4%	8.4%	0%	17.7%	-	-
<b>PHF</b>	0.859	0.913	-	0.871	-	0.895	0.902	-	0.901	-	0.878	0.787	-	0.832	-	0.905
<b>Lights</b>	435	136	0	571	-	105	733	0	838	-	159	145	0	304	-	1713
<b>% Lights</b>	96.2%	93.2%	0%	95.5%	-	94.6%	96.6%	0%	96.3%	-	95.2%	97.3%	0%	96.2%	-	96.0%
<b>Articulated Trucks</b>	0	3	0	3	-	1	1	0	2	-	3	0	0	3	-	8
<b>% Articulated Trucks</b>	0%	2.1%	0%	0.5%	-	0.9%	0.1%	0%	0.2%	-	1.8%	0%	0%	0.9%	-	0.4%
<b>Buses and Single-Unit Trucks</b>	15	7	0	22	-	5	24	0	29	-	3	3	0	6	-	57
<b>% Buses and Single-Unit Trucks</b>	3.3%	4.8%	0%	3.7%	-	4.5%	3.2%	0%	3.3%	-	1.8%	2.0%	0%	1.9%	-	3.2%
<b>Bicycles on Road</b>	2	0	0	2	-	0	1	0	1	-	2	1	0	3	-	6
<b>% Bicycles on Road</b>	0.4%	0%	0%	0.3%	-	0%	0.1%	0%	0.1%	-	1.2%	0.7%	0%	0.9%	-	0.3%
<b>Pedestrians</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1
<b>% Pedestrians</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	0	-	-	-	-	-	1
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50.0%	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

06\_Chicago Avenue & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

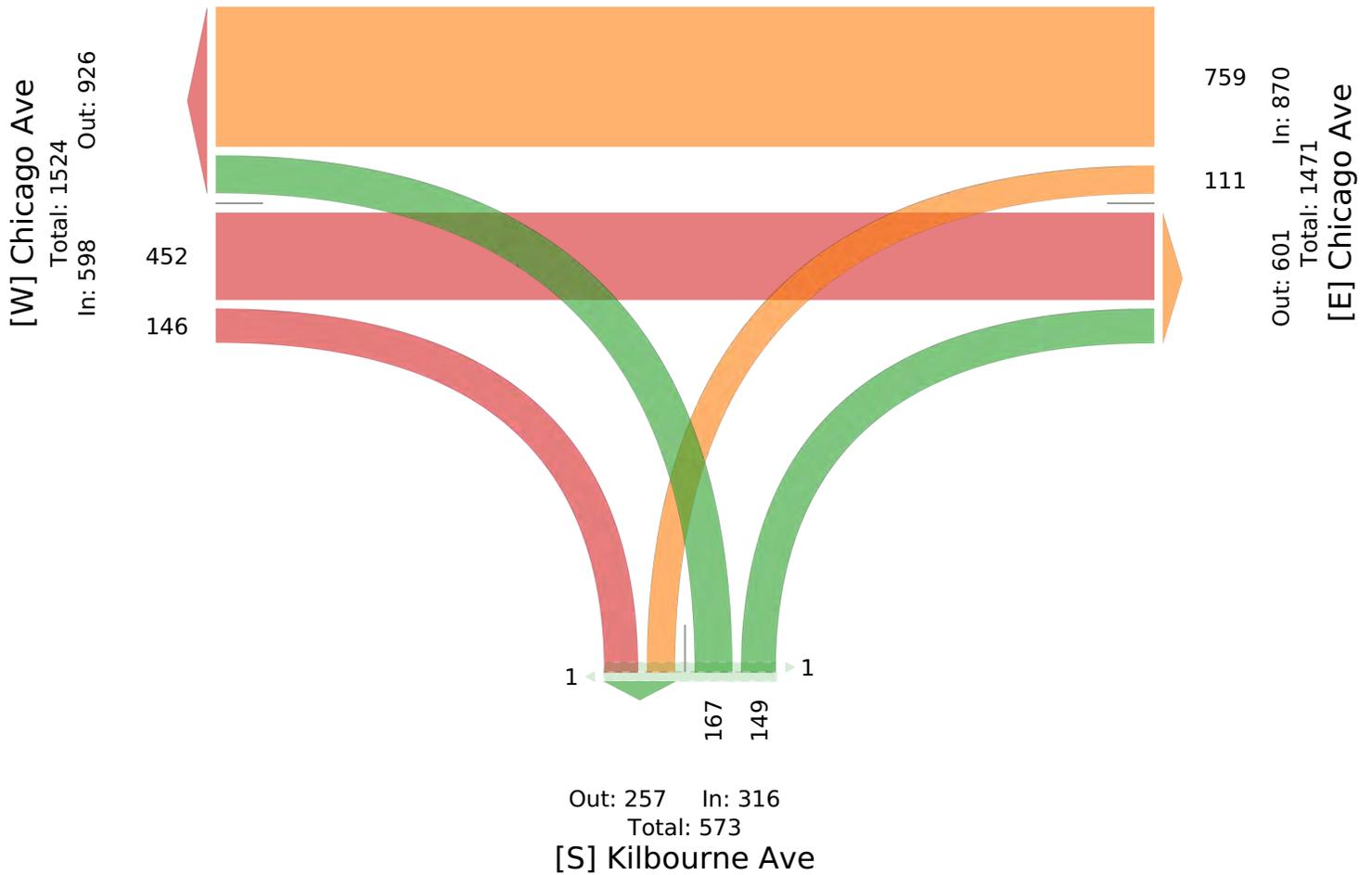
All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977014, Location: 41.895094, -87.740799



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US



07\_Lake Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977015, Location: 41.886161, -87.738093



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lake St Eastbound						Lake St Westbound						Kilbourne Ave Northbound						Kilbourne Ave Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 7:00AM	5	62	0	0	67	0	0	24	5	0	29	0	2	27	0	0	29	2	18	0	5	0	23	0	148
7:15AM	6	84	0	0	90	0	0	36	7	0	43	0	4	16	1	0	21	0	26	0	7	0	33	0	187
7:30AM	3	91	0	0	94	0	0	38	8	0	46	2	7	24	4	0	35	0	23	0	10	0	33	0	208
7:45AM	14	114	0	0	128	0	0	43	13	0	56	0	14	27	4	0	45	0	32	0	5	0	37	0	266
Hourly Total	28	351	0	0	379	0	0	141	33	0	174	2	27	94	9	0	130	2	99	0	27	0	126	0	809
8:00AM	4	91	0	0	95	1	0	51	10	0	61	0	5	19	2	0	26	3	29	0	6	0	35	0	217
8:15AM	5	86	1	0	92	0	0	53	7	0	60	0	7	27	2	0	36	1	28	0	12	0	40	0	228
8:30AM	1	87	0	0	88	0	0	52	7	0	59	0	5	24	0	0	29	0	29	0	2	0	31	0	207
8:45AM	7	90	0	0	97	0	0	44	7	0	51	0	1	26	4	0	31	1	12	0	8	0	20	0	199
Hourly Total	17	354	1	0	372	1	0	200	31	0	231	0	18	96	8	0	122	5	98	0	28	0	126	0	851
4:00PM	0	54	0	0	54	1	0	110	13	0	123	0	6	35	5	0	46	2	43	1	19	0	63	1	286
4:15PM	5	55	0	0	60	1	0	113	19	0	132	0	8	31	2	0	41	2	36	1	21	0	58	0	291
4:30PM	7	73	0	0	80	0	0	115	13	0	128	1	3	32	2	0	37	6	39	0	26	0	65	0	310
4:45PM	5	50	1	0	56	0	0	122	13	0	135	0	12	37	3	0	52	0	37	0	14	0	51	3	294
Hourly Total	17	232	1	0	250	2	0	460	58	0	518	1	29	135	12	0	176	10	155	2	80	0	237	4	1181
5:00PM	3	55	0	0	58	0	0	139	13	0	152	0	7	40	3	0	50	0	46	0	11	0	57	3	317
5:15PM	3	58	0	0	61	0	0	166	16	0	182	0	2	36	3	0	41	2	35	0	22	0	57	0	341
5:30PM	10	44	0	0	54	0	0	141	13	0	154	0	4	35	2	0	41	0	39	0	16	0	55	1	304
5:45PM	9	48	0	0	57	0	0	121	9	0	130	0	7	32	3	0	42	1	27	0	16	0	43	0	272
Hourly Total	25	205	0	0	230	0	0	567	51	0	618	0	20	143	11	0	174	3	147	0	65	0	212	4	1234
<b>Total</b>	87	1142	2	0	1231	3	0	1368	173	0	1541	3	94	468	40	0	602	20	499	2	200	0	701	8	4075
<b>% Approach</b>	7.1%	92.8%	0.2%	0%	-	-	0%	88.8%	11.2%	0%	-	-	15.6%	77.7%	6.6%	0%	-	-	71.2%	0.3%	28.5%	0%	-	-	-
<b>% Total</b>	2.1%	28.0%	0%	0%	30.2%	-	0%	33.6%	4.2%	0%	37.8%	-	2.3%	11.5%	1.0%	0%	14.8%	-	12.2%	0%	4.9%	0%	17.2%	-	-
<b>Lights</b>	78	1094	0	0	1172	-	0	1325	163	0	1488	-	92	459	36	0	587	-	489	2	184	0	675	-	3922
<b>% Lights</b>	89.7%	95.8%	0%	0%	95.2%	-	0%	96.9%	94.2%	0%	96.6%	-	97.9%	98.1%	90.0%	0%	97.5%	-	98.0%	100%	92.0%	0%	96.3%	-	96.2%
<b>Articulated Trucks</b>	1	2	0	0	3	-	0	2	1	0	3	-	0	0	0	0	0	-	0	0	5	0	5	-	11
<b>% Articulated Trucks</b>	1.1%	0.2%	0%	0%	0.2%	-	0%	0.1%	0.6%	0%	0.2%	-	0%	0%	0%	0%	0%	-	0%	0%	2.5%	0%	0.7%	-	0.3%
<b>Buses and Single-Unit Trucks</b>	7	26	0	0	33	-	0	24	5	0	29	-	1	8	2	0	11	-	10	0	10	0	20	-	93
<b>% Buses and Single-Unit Trucks</b>	8.0%	2.3%	0%	0%	2.7%	-	0%	1.8%	2.9%	0%	1.9%	-	1.1%	1.7%	5.0%	0%	1.8%	-	2.0%	0%	5.0%	0%	2.9%	-	2.3%
<b>Bicycles on Road</b>	1	20	2	0	23	-	0	17	4	0	21	-	1	1	2	0	4	-	0	0	1	0	1	-	49
<b>% Bicycles on Road</b>	1.1%	1.8%	100%	0%	1.9%	-	0%	1.2%	2.3%	0%	1.4%	-	1.1%	0.2%	5.0%	0%	0.7%	-	0%	0%	0.5%	0%	0.1%	-	1.2%
<b>Pedestrians</b>	-	-	-	-	3	-	-	-	-	-	1	-	-	-	-	-	19	-	-	-	-	-	6	-	6
<b>% Pedestrians</b>	-	-	-	-	-100%	-	-	-	-	-	-33.3%	-	-	-	-	-	-95.0%	-	-	-	-	-	-75.0%	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	1	-	-	-	-	-	2	-	2
<b>% Bicycles on Crosswalk</b>	-	-	-	-	0%	-	-	-	-	-	-66.7%	-	-	-	-	-	-5.0%	-	-	-	-	-	-25.0%	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

07\_Lake Street & Kilbourne Avenue - TMC

Wed Aug 10, 2022

Full Length (7 AM-9 AM, 4 PM-6 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977015, Location: 41.886161, -87.738093



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Kilbourne Ave

Total: 1429

In: 701 Out: 728

200  
2  
499

3 5

[W] Lake St

Total: 2893  
In: 1231 Out: 1662

87  
1142

2

8 12  
94  
468  
40

Out: 4 In: 602  
Total: 606

[S] Kilbourne Ave

173  
1368

Out: 1681 In: 1541  
Total: 3222  
[E] Lake St

07\_Lake Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977015, Location: 41.886161, -87.738093



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lake St Eastbound						Lake St Westbound						Kilbourne Ave Northbound						Kilbourne Ave Southbound						Int
	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	
2022-08-10 7:30AM	3	91	0	0	94	0	0	38	8	0	46	2	7	24	4	0	35	0	23	0	10	0	33	0	208
7:45AM	14	114	0	0	128	0	0	43	13	0	56	0	14	27	4	0	45	0	32	0	5	0	37	0	266
8:00AM	4	91	0	0	95	1	0	51	10	0	61	0	5	19	2	0	26	3	29	0	6	0	35	0	217
8:15AM	5	86	1	0	92	0	0	53	7	0	60	0	7	27	2	0	36	1	28	0	12	0	40	0	228
<b>Total</b>	26	382	1	0	409	1	0	185	38	0	223	2	33	97	12	0	142	4	112	0	33	0	145	0	919
<b>% Approach</b>	6.4%	93.4%	0.2%	0%	-	-	0%	83.0%	17.0%	0%	-	-	23.2%	68.3%	8.5%	0%	-	-	77.2%	0%	22.8%	0%	-	-	-
<b>% Total</b>	2.8%	41.6%	0.1%	0%	44.5%	-	0%	20.1%	4.1%	0%	24.3%	-	3.6%	10.6%	1.3%	0%	15.5%	-	12.2%	0%	3.6%	0%	15.8%	-	-
<b>PHF</b>	0.464	0.821	-	-	0.781	-	-	0.875	0.692	-	0.893	-	0.589	0.889	0.625	-	0.772	-	0.875	-	0.688	-	0.906	-	0.855
<b>Lights</b>	23	362	0	0	385	-	0	176	35	0	211	-	32	94	10	0	136	-	108	0	30	0	138	-	870
<b>% Lights</b>	88.5%	94.8%	0%	0%	94.1%	-	0%	95.1%	92.1%	0%	94.6%	-	97.0%	96.9%	83.3%	0%	95.8%	-	96.4%	0%	90.9%	0%	95.2%	-	94.7%
<b>Articulated Trucks</b>	1	1	0	0	2	-	0	1	0	0	1	-	0	0	0	0	0	-	0	0	1	0	1	-	4
<b>% Articulated Trucks</b>	3.8%	0.3%	0%	0%	0.5%	-	0%	0.5%	0%	0%	0.4%	-	0%	0%	0%	0%	0%	-	0%	0%	3.0%	0%	0.7%	-	0.4%
<b>Buses and Single-Unit Trucks</b>	2	8	0	0	10	-	0	5	1	0	6	-	1	2	0	0	3	-	4	0	2	0	6	-	25
<b>% Buses and Single-Unit Trucks</b>	7.7%	2.1%	0%	0%	2.4%	-	0%	2.7%	2.6%	0%	2.7%	-	3.0%	2.1%	0%	0%	2.1%	-	3.6%	0%	6.1%	0%	4.1%	-	2.7%
<b>Bicycles on Road</b>	0	11	1	0	12	-	0	3	2	0	5	-	0	1	2	0	3	-	0	0	0	0	0	-	20
<b>% Bicycles on Road</b>	0%	2.9%	100%	0%	2.9%	-	0%	1.6%	5.3%	0%	2.2%	-	0%	1.0%	16.7%	0%	2.1%	-	0%	0%	0%	0%	0%	-	2.2%
<b>Pedestrians</b>	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	4	-	-	-	-	-	0	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	0%	-	-	-	-	-	100%	-	-	-	-	-	-	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	100%	-	-	-	-	-	0%	-	-	-	-	-	-	-

\*Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

07\_Lake Street & Kilbourne Avenue - TMC

Wed Aug 10, 2022

Forced Peak (7:30 AM - 8:30 AM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977015, Location: 41.886161, -87.738093



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Kilbourne Ave

Total: 306

In: 145 Out: 161

33  
112

[W] Lake St  
Total: 660  
In: 409 Out: 251

26  
382  
1

1

1  
33  
97  
12  
3

Out: 1 In: 142  
Total: 143  
[S] Kilbourne Ave

38  
185  
2  
Out: 506 In: 223  
Total: 729  
[E] Lake St

07\_Lake Street & Kilbourn Avenue - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977015, Location: 41.886161, -87.738093



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

Leg Direction	Lake St Eastbound						Lake St Westbound						Kilbourne Ave Northbound						Kilbourne Ave Southbound						
Time	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	L	T	R	U	App	Ped*	Int
2022-08-10 4:15PM	5	55	0	0	60	1	0	113	19	0	132	0	8	31	2	0	41	2	36	1	21	0	58	0	291
4:30PM	7	73	0	0	80	0	0	115	13	0	128	1	3	32	2	0	37	6	39	0	26	0	65	0	310
4:45PM	5	50	1	0	56	0	0	122	13	0	135	0	12	37	3	0	52	0	37	0	14	0	51	3	294
5:00PM	3	55	0	0	58	0	0	139	13	0	152	0	7	40	3	0	50	0	46	0	11	0	57	3	317
<b>Total</b>	20	233	1	0	254	1	0	489	58	0	547	1	30	140	10	0	180	8	158	1	72	0	231	6	1212
<b>% Approach</b>	7.9%	91.7%	0.4%	0%	-	-	0%	89.4%	10.6%	0%	-	-	16.7%	77.8%	5.6%	0%	-	-	68.4%	0.4%	31.2%	0%	-	-	-
<b>% Total</b>	1.7%	19.2%	0.1%	0%	21.0%	-	0%	40.3%	4.8%	0%	45.1%	-	2.5%	11.6%	0.8%	0%	14.9%	-	13.0%	0.1%	5.9%	0%	19.1%	-	-
<b>PHF</b>	0.714	0.788	-	-	0.781	-	-	0.887	0.792	-	0.905	-	0.625	0.875	0.833	-	0.865	-	0.859	0.250	0.692	-	0.888	-	0.956
<b>Lights</b>	19	227	0	0	246	-	0	477	56	0	533	-	30	137	9	0	176	-	157	1	68	0	226	-	1181
<b>% Lights</b>	95.0%	97.4%	0%	0%	96.9%	-	0%	97.5%	96.6%	0%	97.4%	-	100%	97.9%	90.0%	0%	97.8%	-	99.4%	100%	94.4%	0%	97.8%	-	97.4%
<b>Articulated Trucks</b>	0	0	0	0	0	-	0	0	0	0	0	-	0	0	0	0	0	-	0	0	1	0	1	-	1
<b>% Articulated Trucks</b>	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0%	0%	1.4%	0%	0.4%	-	0.1%
<b>Buses and Single-Unit Trucks</b>	1	3	0	0	4	-	0	9	1	0	10	-	0	3	1	0	4	-	1	0	3	0	4	-	22
<b>% Buses and Single-Unit Trucks</b>	5.0%	1.3%	0%	0%	1.6%	-	0%	1.8%	1.7%	0%	1.8%	-	0%	2.1%	10.0%	0%	2.2%	-	0.6%	0%	4.2%	0%	1.7%	-	1.8%
<b>Bicycles on Road</b>	0	3	1	0	4	-	0	3	1	0	4	-	0	0	0	0	0	-	0	0	0	0	0	-	8
<b>% Bicycles on Road</b>	0%	1.3%	100%	0%	1.6%	-	0%	0.6%	1.7%	0%	0.7%	-	0%	0%	0%	0%	0%	-	0%	0%	0%	0%	0%	-	0.7%
<b>Pedestrians</b>	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	8	-	-	-	-	-	6	-
<b>% Pedestrians</b>	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-	-	-	-	-	100%	-
<b>Bicycles on Crosswalk</b>	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-
<b>% Bicycles on Crosswalk</b>	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-	-	-	-	-	0%	-

\* Pedestrians and Bicycles on Crosswalk. L: Left, R: Right, T: Thru, U: U-Turn

07\_Lake Street & Kilbourne Avenue - TMC

Wed Aug 10, 2022

Forced Peak (4:15 PM - 5:15 PM)

All Classes (Lights, Articulated Trucks, Buses and Single-Unit Trucks, Pedestrians, Bicycles on Road, Bicycles on Crosswalk)

All Movements

ID: 977015, Location: 41.886161, -87.738093



Provided by: Gewalt Hamilton Associates Inc.  
625 Forest Edge Drive, Vernon Hills, IL, 60061, US

[N] Kilbourne Ave

Total: 449

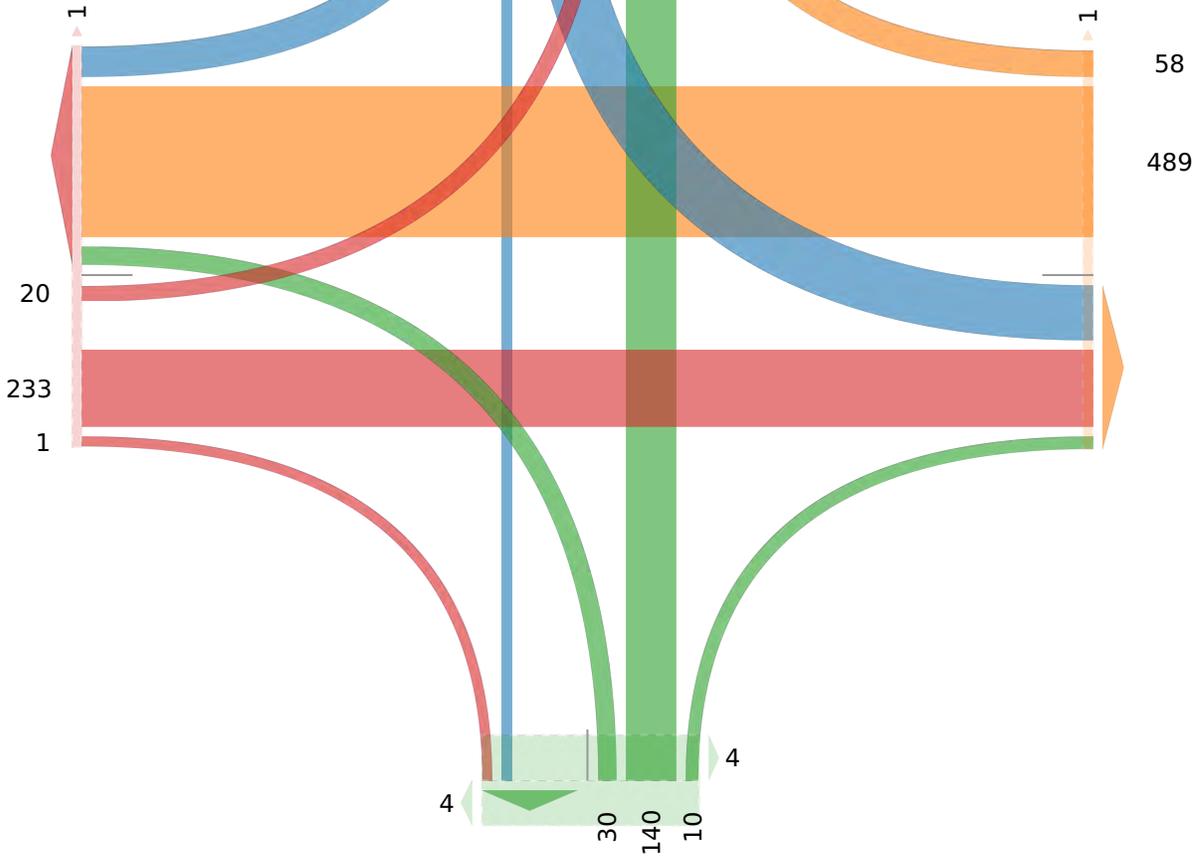
In: 231 Out: 218

72 1 158



[W] Lake St

Total: 845  
In: 254 Out: 591



58  
489  
Out: 401 In: 547  
Total: 948  
[E] Lake St

4 30 140 10 4

Out: 2 In: 180  
Total: 182

[S] Kilbourne Ave

EXISTING (2022) CAPACITY REPORTS

Intersection	
Intersection Delay, s/veh	9.4
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	15	155	45	20	170
Future Vol, veh/h	35	15	155	45	20	170
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	32	57	13	16	22	11
Mvmt Flow	42	18	185	54	24	202
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9	9.2	9.7
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	70%	11%
Vol Thru, %	78%	0%	89%
Vol Right, %	23%	30%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	200	50	190
LT Vol	0	35	20
Through Vol	155	0	170
RT Vol	45	15	0
Lane Flow Rate	238	60	226
Geometry Grp	1	1	1
Degree of Util (X)	0.291	0.09	0.296
Departure Headway (Hd)	4.406	5.466	4.711
Convergence, Y/N	Yes	Yes	Yes
Cap	817	656	765
Service Time	2.422	3.496	2.728
HCM Lane V/C Ratio	0.291	0.091	0.295
HCM Control Delay	9.2	9	9.7
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.2	0.3	1.2

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	R	T	R	L	T
Traffic Vol, veh/h	1	1	200	5	5	200
Future Vol, veh/h	1	1	200	5	5	200
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	13	2	2	13
Mvmt Flow	1	1	238	6	6	238

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	491	241	0	0	244
Stage 1	241	-	-	-	-
Stage 2	250	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	537	798	-	-	1322
Stage 1	799	-	-	-	-
Stage 2	792	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	534	798	-	-	1322
Mov Cap-2 Maneuver	534	-	-	-	-
Stage 1	799	-	-	-	-
Stage 2	788	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.6	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	640	1322
HCM Lane V/C Ratio	-	-	0.004	0.005
HCM Control Delay (s)	-	-	10.6	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC  
 300: Kilbourn Avenue & Parking Lot Access/South Car Access

Existing (2022) Traffic Volumes  
 AM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	1	1	1	1	205	1	1	200	1
Future Vol, veh/h	1	1	1	1	1	1	1	205	1	1	200	1
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	100	2	2	2	2	2	2	12	50	2	12	2
Mvmt Flow	1	1	1	1	1	1	1	241	1	1	235	1

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	483	482	236	483	482	242	236	0	0	242	0	0
Stage 1	238	238	-	244	244	-	-	-	-	-	-	-
Stage 2	245	244	-	239	238	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	365	484	803	494	484	797	1331	-	-	1324	-	-
Stage 1	590	708	-	760	704	-	-	-	-	-	-	-
Stage 2	584	704	-	764	708	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	363	483	803	492	483	797	1331	-	-	1324	-	-
Mov Cap-2 Maneuver	363	483	-	492	483	-	-	-	-	-	-	-
Stage 1	589	707	-	759	703	-	-	-	-	-	-	-
Stage 2	582	703	-	761	707	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.3		11.5		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1331	-	-	494	560	1324	-
HCM Lane V/C Ratio	0.001	-	-	0.007	0.006	0.001	-
HCM Control Delay (s)	7.7	0	-	12.3	11.5	7.7	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

Intersection						
Int Delay, s/veh	0.3					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	1	1	40	1	1
Future Vol, veh/h	50	1	1	40	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	2	2	38	100	2
Mvmt Flow	63	1	1	50	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	64	0	116
Stage 1	-	-	-	-	64
Stage 2	-	-	-	-	52
Critical Hdwy	-	-	4.12	-	7.4
Critical Hdwy Stg 1	-	-	-	-	6.4
Critical Hdwy Stg 2	-	-	-	-	6.4
Follow-up Hdwy	-	-	2.218	-	4.4
Pot Cap-1 Maneuver	-	-	1538	-	691
Stage 1	-	-	-	-	759
Stage 2	-	-	-	-	770
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1538	-	690
Mov Cap-2 Maneuver	-	-	-	-	690
Stage 1	-	-	-	-	759
Stage 2	-	-	-	-	769

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	817	-	-	1538	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	9.4	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	5	1	35	5	1
Future Vol, veh/h	35	5	1	35	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	25	25	24	2	40	2
Mvmt Flow	47	7	1	47	7	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	54	0	100
Stage 1	-	-	-	-	51
Stage 2	-	-	-	-	49
Critical Hdwy	-	-	4.34	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.416	-	3.86
Pot Cap-1 Maneuver	-	-	1422	-	814
Stage 1	-	-	-	-	883
Stage 2	-	-	-	-	885
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1422	-	813
Mov Cap-2 Maneuver	-	-	-	-	813
Stage 1	-	-	-	-	883
Stage 2	-	-	-	-	884

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	841	-	-	1422	-
HCM Lane V/C Ratio	0.01	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

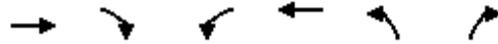
Lanes, Volumes, Timings  
600: Kilbourn Avenue & Chicago Avenue

Existing (2022) Traffic Volumes  
AM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	135	80	325	85	80
Future Volume (vph)	450	135	80	325	85	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	15	11	12
Satd. Flow (prot)	1920	0	0	1844	1504	1417
Flt Permitted				0.676	0.950	
Satd. Flow (perm)	1920	0	0	1259	1504	1417
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	26					83
Link Speed (mph)	30			30	30	
Link Distance (ft)	1353			1320	147	
Travel Time (s)	30.8			30.0	3.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	11%	9%	13%	16%	14%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	610	0	0	422	89	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	6			6	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	1.00	1.00	0.88	1.04	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases			6			2
Minimum Split (s)	47.0		15.0	62.0	23.0	47.0
Total Split (s)	47.0		15.0	62.0	23.0	47.0
Total Split (%)	55.3%		17.6%	72.9%	27.1%	55.3%
Maximum Green (s)	43.0		12.0	58.0	19.0	43.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		0.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	4.0			4.0	4.0	4.0
Lead/Lag	Lag		Lead			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Act Effect Green (s)	43.0			58.0	19.0	43.0
Actuated g/C Ratio	0.51			0.68	0.22	0.51
v/c Ratio	0.62			0.45	0.26	0.11
Control Delay	17.8			7.3	29.8	3.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	17.8			7.3	29.8	3.1
LOS	B			A	C	A
Approach Delay	17.8			7.3	16.9	
Approach LOS	B			A	B	
Queue Length 50th (ft)	213			80	39	0
Queue Length 95th (ft)	321			123	80	21

Lanes, Volumes, Timings  
 600: Kilbourn Avenue & Chicago Avenue

Existing (2022) Traffic Volumes  
 AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	1273			1240	67	
Turn Bay Length (ft)						
Base Capacity (vph)	984			934	336	757
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.62			0.45	0.26	0.11

Intersection Summary	
Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	85
Offset:	72 (85%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.62
Intersection Signal Delay:	14.0
Intersection LOS:	B
Intersection Capacity Utilization	108.6%
ICU Level of Service	G
Analysis Period (min)	15

Splits and Phases: 600: Kilbourn Avenue & Chicago Avenue



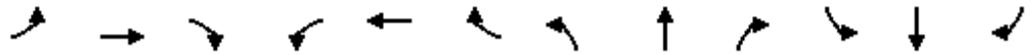
Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Existing (2022) Traffic Volumes  
AM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	25	380	0	0	185	40	35	95	10	110	0	35
Future Volume (vph)	25	380	0	0	185	40	35	95	10	110	0	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3414	0	0	3328	0	0	1786	0	0	1678	0
Flt Permitted		0.929						0.909			0.640	
Satd. Flow (perm)	0	3181	0	0	3328	0	0	1643	0	0	1114	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					47			8				31
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1351			1366			1115				730
Travel Time (s)		30.7			31.0			25.3				16.6
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	12%	5%	2%	2%	5%	8%	3%	3%	17%	4%	0%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	471	0	0	262	0	0	163	0	0	169	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	

Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Existing (2022) Traffic Volumes  
AM Peak Hour

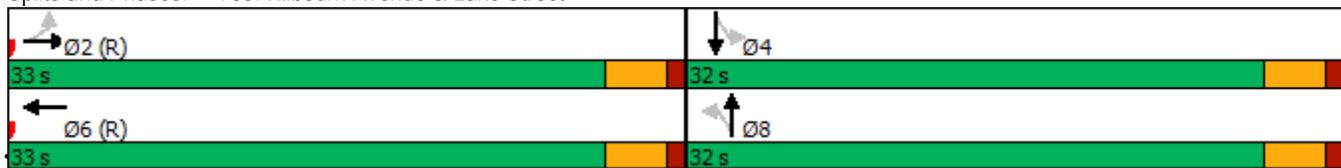


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	50.8%	50.8%			50.8%		49.2%	49.2%		49.2%	49.2%	
Maximum Green (s)	29.0	29.0			29.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	7.0	7.0			7.0		4.0	4.0		4.0	4.0	
Recall Mode	C-Min	C-Min			C-Min		None	None		None	None	
Walk Time (s)	18.0	18.0			18.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	11.0	11.0			11.0		18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		44.9			44.9			16.9			16.9	
Actuated g/C Ratio		0.69			0.69			0.26			0.26	
v/c Ratio		0.21			0.11			0.38			0.54	
Control Delay		5.6			4.4			21.2			23.6	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		5.6			4.4			21.2			23.6	
LOS		A			A			C			C	
Approach Delay		5.6			4.4			21.2			23.6	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		36			15			51			47	
Queue Length 95th (ft)		65			32			85			88	
Internal Link Dist (ft)		1271			1286			1035			650	
Turn Bay Length (ft)												
Base Capacity (vph)		2196			2312			712			497	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.21			0.11			0.23			0.34	

Intersection Summary

Area Type: Other  
 Cycle Length: 65  
 Actuated Cycle Length: 65  
 Offset: 12 (18%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.54  
 Intersection Signal Delay: 10.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 51.2%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 700: Kilbourn Avenue & Lake Street



Intersection	
Intersection Delay, s/veh	10.7
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	15	270	20	15	255
Future Vol, veh/h	30	15	270	20	15	255
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	21	18	4	42	29	4
Mvmt Flow	34	17	303	22	17	287
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.2	10.4	11.3
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	67%	6%
Vol Thru, %	93%	0%	94%
Vol Right, %	7%	33%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	290	45	270
LT Vol	0	30	15
Through Vol	270	0	255
RT Vol	20	15	0
Lane Flow Rate	326	51	303
Geometry Grp	1	1	1
Degree of Util (X)	0.4	0.079	0.411
Departure Headway (Hd)	4.416	5.62	4.882
Convergence, Y/N	Yes	Yes	Yes
Cap	815	636	737
Service Time	2.439	3.666	2.909
HCM Lane V/C Ratio	0.4	0.08	0.411
HCM Control Delay	10.4	9.2	11.3
HCM Lane LOS	B	A	B
HCM 95th-tile Q	1.9	0.3	2

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	5	5	285	15	1	285
Future Vol, veh/h	5	5	285	15	1	285
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	20	5	2	2	6
Mvmt Flow	6	6	331	17	1	331

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	673	340	0	0	348
Stage 1	340	-	-	-	-
Stage 2	333	-	-	-	-
Critical Hdwy	6.42	6.4	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.48	-	-	2.218
Pot Cap-1 Maneuver	421	663	-	-	1211
Stage 1	721	-	-	-	-
Stage 2	726	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	421	663	-	-	1211
Mov Cap-2 Maneuver	421	-	-	-	-
Stage 1	721	-	-	-	-
Stage 2	725	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	515	1211
HCM Lane V/C Ratio	-	-	0.023	0.001
HCM Control Delay (s)	-	-	12.2	8
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC  
 300: Kilbourn Avenue & Parking Lot Access/South Car Access

Existing (2022) Traffic Volumes  
 PM Peak Hour

Intersection												
Int Delay, s/veh	0.2											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	5	1	1	1	1	0	1	295	1	1	285	5
Future Vol, veh/h	5	1	1	1	1	0	1	295	1	1	285	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	6	100	2	5	83
Mvmt Flow	6	1	1	1	1	0	1	343	1	1	331	6

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	682	682	334	683	685	344	337	0	0	344	0	0
Stage 1	336	336	-	346	346	-	-	-	-	-	-	-
Stage 2	346	346	-	337	339	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	364	372	708	363	371	699	1222	-	-	1215	-	-
Stage 1	678	642	-	670	635	-	-	-	-	-	-	-
Stage 2	670	635	-	677	640	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	363	371	708	361	370	699	1222	-	-	1215	-	-
Mov Cap-2 Maneuver	363	371	-	361	370	-	-	-	-	-	-	-
Stage 1	677	641	-	669	634	-	-	-	-	-	-	-
Stage 2	668	634	-	674	639	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	14.4		14.9		0		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1222	-	-	391	365	1215	-
HCM Lane V/C Ratio	0.001	-	-	0.021	0.006	0.001	-
HCM Control Delay (s)	7.9	0	-	14.4	14.9	8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.1	0	0	-

Intersection						
Int Delay, s/veh	0.5					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	5	1	25	1	1
Future Vol, veh/h	15	5	1	25	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	44	25	2	16	2	2
Mvmt Flow	22	7	1	37	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	29	0	65
Stage 1	-	-	-	-	26
Stage 2	-	-	-	-	39
Critical Hdwy	-	-	4.12	-	6.42
Critical Hdwy Stg 1	-	-	-	-	5.42
Critical Hdwy Stg 2	-	-	-	-	5.42
Follow-up Hdwy	-	-	2.218	-	3.518
Pot Cap-1 Maneuver	-	-	1584	-	941
Stage 1	-	-	-	-	997
Stage 2	-	-	-	-	983
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1584	-	940
Mov Cap-2 Maneuver	-	-	-	-	940
Stage 1	-	-	-	-	997
Stage 2	-	-	-	-	982

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	992	-	-	1584	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	1	1	15	1	1
Future Vol, veh/h	15	1	1	15	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	43	2	2	21	2	2
Mvmt Flow	21	1	1	21	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	22	0	45 22
Stage 1	-	-	-	-	22 -
Stage 2	-	-	-	-	23 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1593	-	965 1055
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	1000 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	964 1055
Mov Cap-2 Maneuver	-	-	-	-	964 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	999 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1007	-	-	1593	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings  
600: Kilbourn Avenue & Chicago Avenue

Existing (2022) Traffic Volumes  
PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	450	145	110	760	165	150
Future Volume (vph)	450	145	110	760	165	150
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	15	11	12
Satd. Flow (prot)	1988	0	0	2012	1662	1568
Flt Permitted				0.411	0.950	
Satd. Flow (perm)	1988	0	0	832	1662	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	23					165
Link Speed (mph)	30			30	30	
Link Distance (ft)	1353			1320	147	
Travel Time (s)	30.8			30.0	3.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	7%	5%	3%	5%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	654	0	0	956	181	165
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	6			6	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	1.00	1.00	0.88	1.04	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases			6			2
Minimum Split (s)	39.0		23.0	62.0	23.0	39.0
Total Split (s)	39.0		23.0	62.0	23.0	39.0
Total Split (%)	45.9%		27.1%	72.9%	27.1%	45.9%
Maximum Green (s)	35.0		20.0	58.0	19.0	35.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		0.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	4.0			4.0	4.0	4.0
Lead/Lag	Lag		Lead			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Act Effect Green (s)	35.0			58.0	19.0	35.0
Actuated g/C Ratio	0.41			0.68	0.22	0.41
v/c Ratio	0.79			1.15	0.49	0.22
Control Delay	29.2			95.0	34.0	3.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	29.2			95.0	34.0	3.6
LOS	C			F	C	A
Approach Delay	29.2			95.0	19.5	
Approach LOS	C			F	B	
Queue Length 50th (ft)	286			~376	85	0
Queue Length 95th (ft)	#430			#836	148	35

Lanes, Volumes, Timings  
 600: Kilbourn Avenue & Chicago Avenue

Existing (2022) Traffic Volumes  
 PM Peak Hour

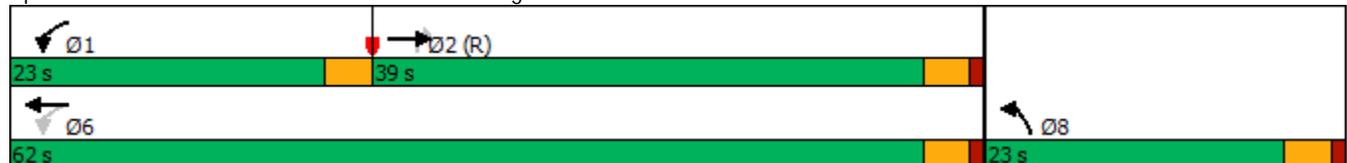


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	1273			1240	67	
Turn Bay Length (ft)						
Base Capacity (vph)	832			831	371	742
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.79			1.15	0.49	0.22

Intersection Summary

Area Type: Other  
 Cycle Length: 85  
 Actuated Cycle Length: 85  
 Offset: 75 (88%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 95  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.15  
 Intersection Signal Delay: 59.6  
 Intersection LOS: E  
 Intersection Capacity Utilization 106.7%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 600: Kilbourn Avenue & Chicago Avenue



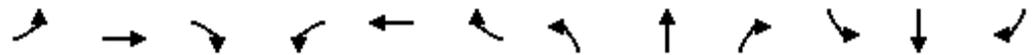
Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Existing (2022) Traffic Volumes  
PM Peak Hour

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	20	235	0	0	490	60	30	140	10	160	0	70
Future Volume (vph)	20	235	0	0	490	60	30	140	10	160	0	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3485	0	0	3449	0	0	1827	0	0	1699	0
Flt Permitted		0.906						0.929			0.651	
Satd. Flow (perm)	0	3171	0	0	3449	0	0	1711	0	0	1145	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					26			5				43
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1351			1366			1115				730
Travel Time (s)		30.7			31.0			25.3				16.6
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	2%	2%	3%	3%	2%	2%	10%	2%	2%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	266	0	0	573	0	0	187	0	0	240	0
Enter Blocked Intersection	No	No	No	No	No	No						
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	

Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Existing (2022) Traffic Volumes  
PM Peak Hour

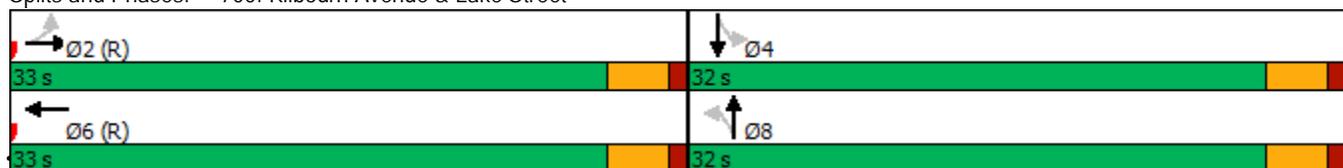


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	50.8%	50.8%			50.8%		49.2%	49.2%		49.2%	49.2%	
Maximum Green (s)	29.0	29.0			29.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	7.0	7.0			7.0		4.0	4.0		4.0	4.0	
Recall Mode	C-Min	C-Min			C-Min		None	None		None	None	
Walk Time (s)	18.0	18.0			18.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	11.0	11.0			11.0		18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		38.4			38.4			18.6			18.6	
Actuated g/C Ratio		0.59			0.59			0.29			0.29	
v/c Ratio		0.14			0.28			0.38			0.67	
Control Delay		6.9			7.2			19.7			26.1	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.9			7.2			19.7			26.1	
LOS		A			A			B			C	
Approach Delay		6.9			7.2			19.7			26.1	
Approach LOS		A			A			B			C	
Queue Length 50th (ft)		19			43			60			71	
Queue Length 95th (ft)		46			93			93			122	
Internal Link Dist (ft)		1271			1286			1035			650	
Turn Bay Length (ft)												
Base Capacity (vph)		1875			2050			739			517	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.14			0.28			0.25			0.46	

Intersection Summary

Area Type: Other  
 Cycle Length: 65  
 Actuated Cycle Length: 65  
 Offset: 47 (72%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 12.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 58.8%  
 ICU Level of Service B  
 Analysis Period (min) 15

Splits and Phases: 700: Kilbourn Avenue & Lake Street



**FUTURE (2028) BUILD CAPACITY REPORTS**

Intersection	
Intersection Delay, s/veh	9.5
Intersection LOS	A

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	35	15	160	45	20	180
Future Vol, veh/h	35	15	160	45	20	180
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles, %	32	57	13	16	22	11
Mvmt Flow	42	18	190	54	24	214
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.1	9.3	9.9
HCM LOS	A	A	A

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	70%	10%
Vol Thru, %	78%	0%	90%
Vol Right, %	22%	30%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	205	50	200
LT Vol	0	35	20
Through Vol	160	0	180
RT Vol	45	15	0
Lane Flow Rate	244	60	238
Geometry Grp	1	1	1
Degree of Util (X)	0.3	0.091	0.312
Departure Headway (Hd)	4.423	5.507	4.717
Convergence, Y/N	Yes	Yes	Yes
Cap	815	651	764
Service Time	2.441	3.54	2.737
HCM Lane V/C Ratio	0.299	0.092	0.312
HCM Control Delay	9.3	9.1	9.9
HCM Lane LOS	A	A	A
HCM 95th-tile Q	1.3	0.3	1.3

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	1	1	205	5	5	210
Future Vol, veh/h	1	1	205	5	5	210
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	84	84	84	84	84	84
Heavy Vehicles, %	2	2	13	2	2	13
Mvmt Flow	1	1	244	6	6	250

Major/Minor	Minor1	Major1	Major2		
Conflicting Flow All	509	247	0	0	250
Stage 1	247	-	-	-	-
Stage 2	262	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12
Critical Hdwy Stg 1	5.42	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218
Pot Cap-1 Maneuver	524	792	-	-	1316
Stage 1	794	-	-	-	-
Stage 2	782	-	-	-	-
Platoon blocked, %			-	-	-
Mov Cap-1 Maneuver	521	792	-	-	1316
Mov Cap-2 Maneuver	521	-	-	-	-
Stage 1	794	-	-	-	-
Stage 2	778	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.2
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	629	1316
HCM Lane V/C Ratio	-	-	0.004	0.005
HCM Control Delay (s)	-	-	10.7	7.7
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0	0

HCM 6th TWSC  
 300: Kilbourn Avenue & Parking Lot Access/South Car Access

Future (2028) Build Traffic Projections  
 AM Peak Hour

Intersection												
Int Delay, s/veh	0.3											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	1	1	1	1	1	5	210	1	1	205	5
Future Vol, veh/h	1	1	1	1	1	1	5	210	1	1	205	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	85	85	85	85	85	85	85	85	85	85	85	85
Heavy Vehicles, %	100	2	2	2	2	2	2	12	50	2	12	2
Mvmt Flow	1	1	1	1	1	1	6	247	1	1	241	6

Major/Minor	Minor2		Minor1		Major1			Major2				
Conflicting Flow All	507	506	244	507	509	248	247	0	0	248	0	0
Stage 1	246	246	-	260	260	-	-	-	-	-	-	-
Stage 2	261	260	-	247	249	-	-	-	-	-	-	-
Critical Hdwy	8.1	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	7.1	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	4.4	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	351	469	795	476	467	791	1319	-	-	1318	-	-
Stage 1	583	703	-	745	693	-	-	-	-	-	-	-
Stage 2	571	693	-	757	701	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	348	466	795	472	464	791	1319	-	-	1318	-	-
Mov Cap-2 Maneuver	348	466	-	472	464	-	-	-	-	-	-	-
Stage 1	580	702	-	741	690	-	-	-	-	-	-	-
Stage 2	566	690	-	754	700	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	12.6		11.7		0.2		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1319	-	-	478	542	1318	-
HCM Lane V/C Ratio	0.004	-	-	0.007	0.007	0.001	-
HCM Control Delay (s)	7.7	0	-	12.6	11.7	7.7	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0	0	0	-

Intersection						
Int Delay, s/veh	0.2					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	50	0	0	40	1	1
Future Vol, veh/h	50	0	0	40	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	80	80	80	80	80	80
Heavy Vehicles, %	17	2	2	38	100	2
Mvmt Flow	63	0	0	50	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	113 63
Stage 1	-	-	-	-	63 -
Stage 2	-	-	-	-	50 -
Critical Hdwy	-	-	-	-	7.4 6.22
Critical Hdwy Stg 1	-	-	-	-	6.4 -
Critical Hdwy Stg 2	-	-	-	-	6.4 -
Follow-up Hdwy	-	-	-	-	4.4 3.318
Pot Cap-1 Maneuver	-	0	0	-	694 1002
Stage 1	-	0	0	-	760 -
Stage 2	-	0	0	-	772 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	694 1002
Mov Cap-2 Maneuver	-	-	-	-	694 -
Stage 1	-	-	-	-	760 -
Stage 2	-	-	-	-	772 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	9.4
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	820	-	-
HCM Lane V/C Ratio	0.003	-	-
HCM Control Delay (s)	9.4	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	0.8					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	35	5	1	35	5	1
Future Vol, veh/h	35	5	1	35	5	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	75	75	75	75	75	75
Heavy Vehicles, %	25	25	24	2	40	2
Mvmt Flow	47	7	1	47	7	1

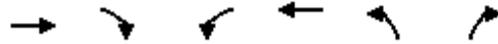
Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	54	0	100
Stage 1	-	-	-	-	51
Stage 2	-	-	-	-	49
Critical Hdwy	-	-	4.34	-	6.8
Critical Hdwy Stg 1	-	-	-	-	5.8
Critical Hdwy Stg 2	-	-	-	-	5.8
Follow-up Hdwy	-	-	2.416	-	3.86
Pot Cap-1 Maneuver	-	-	1422	-	814
Stage 1	-	-	-	-	883
Stage 2	-	-	-	-	885
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1422	-	813
Mov Cap-2 Maneuver	-	-	-	-	813
Stage 1	-	-	-	-	883
Stage 2	-	-	-	-	884

Approach	EB	WB	NB
HCM Control Delay, s	0	0.2	9.3
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	841	-	-	1422	-
HCM Lane V/C Ratio	0.01	-	-	0.001	-
HCM Control Delay (s)	9.3	-	-	7.5	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings  
600: Kilbourn Avenue & Chicago Avenue

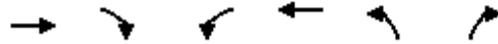
Future (2028) Build Traffic Projections  
AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	465	145	80	335	90	80
Future Volume (vph)	465	145	80	335	90	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	15	11	12
Satd. Flow (prot)	1917	0	0	1844	1504	1417
Flt Permitted				0.652	0.950	
Satd. Flow (perm)	1917	0	0	1214	1504	1417
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	27					83
Link Speed (mph)	30			30	30	
Link Distance (ft)	1353			1320	147	
Travel Time (s)	30.8			30.0	3.3	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	8%	11%	9%	13%	16%	14%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	635	0	0	432	94	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	6			6	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	1.00	1.00	0.88	1.04	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases			6			2
Minimum Split (s)	47.0		15.0	62.0	23.0	47.0
Total Split (s)	47.0		15.0	62.0	23.0	47.0
Total Split (%)	55.3%		17.6%	72.9%	27.1%	55.3%
Maximum Green (s)	43.0		12.0	58.0	19.0	43.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		0.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	4.0			4.0	4.0	4.0
Lead/Lag	Lag		Lead			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Act Effect Green (s)	43.0			58.0	19.0	43.0
Actuated g/C Ratio	0.51			0.68	0.22	0.51
v/c Ratio	0.65			0.48	0.28	0.11
Control Delay	18.5			7.6	30.0	3.1
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	18.5			7.6	30.0	3.1
LOS	B			A	C	A
Approach Delay	18.5			7.6	17.4	
Approach LOS	B			A	B	
Queue Length 50th (ft)	226			82	42	0
Queue Length 95th (ft)	341			127	84	21

Lanes, Volumes, Timings  
 600: Kilbourn Avenue & Chicago Avenue

Future (2028) Build Traffic Projections  
 AM Peak Hour



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	1273			1240	67	
Turn Bay Length (ft)						
Base Capacity (vph)	983			909	336	757
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.65			0.48	0.28	0.11

Intersection Summary

Area Type:	Other
Cycle Length:	85
Actuated Cycle Length:	85
Offset:	72 (85%), Referenced to phase 2:EBT, Start of Green
Natural Cycle:	85
Control Type:	Pretimed
Maximum v/c Ratio:	0.65
Intersection Signal Delay:	14.5
Intersection LOS:	B
Intersection Capacity Utilization	109.1%
ICU Level of Service	H
Analysis Period (min)	15

Splits and Phases: 600: Kilbourn Avenue & Chicago Avenue



Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Future (2028) Build Traffic Projections  
AM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Traffic Volume (vph)	25	390	0	0	190	45	35	100	10	115	1	35
Future Volume (vph)	25	390	0	0	190	45	35	100	10	115	1	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3414	0	0	3320	0	0	1787	0	0	1681	0
Flt Permitted		0.929						0.903			0.653	
Satd. Flow (perm)	0	3181	0	0	3320	0	0	1633	0	0	1140	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					52			7				30
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1351			1366			1115				730
Travel Time (s)		30.7			31.0			25.3				16.6
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Heavy Vehicles (%)	12%	5%	2%	2%	5%	8%	3%	3%	17%	4%	0%	9%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	482	0	0	273	0	0	169	0	0	176	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	

Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Future (2028) Build Traffic Projections  
AM Peak Hour

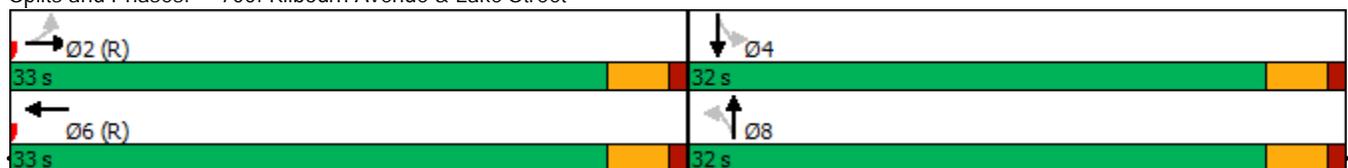


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	50.8%	50.8%			50.8%		49.2%	49.2%		49.2%	49.2%	
Maximum Green (s)	29.0	29.0			29.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	7.0	7.0			7.0		4.0	4.0		4.0	4.0	
Recall Mode	C-Min	C-Min			C-Min		None	None		None	None	
Walk Time (s)	18.0	18.0			18.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	11.0	11.0			11.0		18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		39.9			39.9			17.1			17.1	
Actuated g/C Ratio		0.61			0.61			0.26			0.26	
v/c Ratio		0.25			0.13			0.39			0.55	
Control Delay		6.4			4.7			21.4			23.7	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		6.4			4.7			21.4			23.7	
LOS		A			A			C			C	
Approach Delay		6.4			4.7			21.4			23.7	
Approach LOS		A			A			C			C	
Queue Length 50th (ft)		37			15			54			50	
Queue Length 95th (ft)		67			33			88			91	
Internal Link Dist (ft)		1271			1286			1035			650	
Turn Bay Length (ft)												
Base Capacity (vph)		1952			2058			707			508	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.25			0.13			0.24			0.35	

Intersection Summary

Area Type: Other  
 Cycle Length: 65  
 Actuated Cycle Length: 65  
 Offset: 12 (18%), Referenced to phase 2:EBTL and 6:WBT, Start of Green  
 Natural Cycle: 65  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.55  
 Intersection Signal Delay: 11.1  
 Intersection LOS: B  
 Intersection Capacity Utilization 51.8%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 700: Kilbourn Avenue & Lake Street



Intersection	
Intersection Delay, s/veh	11.1
Intersection LOS	B

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	30	15	285	20	15	275
Future Vol, veh/h	30	15	285	20	15	275
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Heavy Vehicles, %	21	18	4	42	29	4
Mvmt Flow	34	17	320	22	17	309
Number of Lanes	1	0	1	0	0	1

Approach	WB	NB	SB
Opposing Approach		SB	NB
Opposing Lanes	0	1	1
Conflicting Approach Left	NB		WB
Conflicting Lanes Left	1	0	1
Conflicting Approach Right	SB	WB	
Conflicting Lanes Right	1	1	0
HCM Control Delay	9.3	10.7	11.8
HCM LOS	A	B	B

Lane	NBLn1	WBLn1	SBLn1
Vol Left, %	0%	67%	5%
Vol Thru, %	93%	0%	95%
Vol Right, %	7%	33%	0%
Sign Control	Stop	Stop	Stop
Traffic Vol by Lane	305	45	290
LT Vol	0	30	15
Through Vol	285	0	275
RT Vol	20	15	0
Lane Flow Rate	343	51	326
Geometry Grp	1	1	1
Degree of Util (X)	0.423	0.08	0.444
Departure Headway (Hd)	4.446	5.708	4.903
Convergence, Y/N	Yes	Yes	Yes
Cap	809	626	736
Service Time	2.471	3.759	2.93
HCM Lane V/C Ratio	0.424	0.081	0.443
HCM Control Delay	10.7	9.3	11.8
HCM Lane LOS	B	A	B
HCM 95th-tile Q	2.1	0.3	2.3

Intersection						
Int Delay, s/veh	0.2					
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W	W	T	T	T	T
Traffic Vol, veh/h	5	5	300	20	5	300
Future Vol, veh/h	5	5	300	20	5	300
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	86	86	86	86	86	86
Heavy Vehicles, %	2	20	5	2	2	6
Mvmt Flow	6	6	349	23	6	349

Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	722	361	0	0	372	0
Stage 1	361	-	-	-	-	-
Stage 2	361	-	-	-	-	-
Critical Hdwy	6.42	6.4	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.48	-	-	2.218	-
Pot Cap-1 Maneuver	394	645	-	-	1186	-
Stage 1	705	-	-	-	-	-
Stage 2	705	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	392	645	-	-	1186	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	705	-	-	-	-	-
Stage 2	701	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	12.6	0	0.1
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBRWBLn1	SBL	SBT
Capacity (veh/h)	-	-	488	1186
HCM Lane V/C Ratio	-	-	0.024	0.005
HCM Control Delay (s)	-	-	12.6	8.1
HCM Lane LOS	-	-	B	A
HCM 95th %tile Q(veh)	-	-	0.1	0

HCM 6th TWSC  
 300: Kilbourn Avenue & Parking Lot Access/South Car Access

Future (2028) Build Traffic Projections  
 PM Peak Hour

Intersection												
Int Delay, s/veh	0.6											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	10	1	10	1	1	1	5	310	1	1	295	10
Future Vol, veh/h	10	1	10	1	1	1	5	310	1	1	295	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None									
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	6	100	2	5	83
Mvmt Flow	12	1	12	1	1	1	6	360	1	1	343	12

Major/Minor	Minor2		Minor1		Major1		Major2					
Conflicting Flow All	725	724	349	731	730	361	355	0	0	361	0	0
Stage 1	351	351	-	373	373	-	-	-	-	-	-	-
Stage 2	374	373	-	358	357	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	340	352	694	337	349	684	1204	-	-	1198	-	-
Stage 1	666	632	-	648	618	-	-	-	-	-	-	-
Stage 2	647	618	-	660	628	-	-	-	-	-	-	-
Platoon blocked, %								-	-	-	-	-
Mov Cap-1 Maneuver	337	350	694	329	347	684	1204	-	-	1198	-	-
Mov Cap-2 Maneuver	337	350	-	329	347	-	-	-	-	-	-	-
Stage 1	662	631	-	644	614	-	-	-	-	-	-	-
Stage 2	641	614	-	647	627	-	-	-	-	-	-	-

Approach	EB		WB		NB		SB	
HCM Control Delay, s	13.5		13.9		0.1		0	
HCM LOS	B		B					

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1204	-	-	447	406	1198	-
HCM Lane V/C Ratio	0.005	-	-	0.055	0.009	0.001	-
HCM Control Delay (s)	8	0	-	13.5	13.9	8	0
HCM Lane LOS	A	A	-	B	B	A	A
HCM 95th %tile Q(veh)	0	-	-	0.2	0	0	-

Intersection						
Int Delay, s/veh	0.4					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Traffic Vol, veh/h	20	0	0	25	1	1
Future Vol, veh/h	20	0	0	25	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	67	67	67	67	67	67
Heavy Vehicles, %	44	25	2	16	2	2
Mvmt Flow	30	0	0	37	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	-	-	-	67 30
Stage 1	-	-	-	-	30 -
Stage 2	-	-	-	-	37 -
Critical Hdwy	-	-	-	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	-	-	3.518 3.318
Pot Cap-1 Maneuver	-	0	0	-	938 1044
Stage 1	-	0	0	-	993 -
Stage 2	-	0	0	-	985 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	-	-	938 1044
Mov Cap-2 Maneuver	-	-	-	-	938 -
Stage 1	-	-	-	-	993 -
Stage 2	-	-	-	-	985 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBT
Capacity (veh/h)	988	-	-
HCM Lane V/C Ratio	0.003	-	-
HCM Control Delay (s)	8.7	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	0	-	-

Intersection						
Int Delay, s/veh	0.7					
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	15	1	1	15	1	1
Future Vol, veh/h	15	1	1	15	1	1
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	73	73	73	73	73	73
Heavy Vehicles, %	43	2	2	21	2	2
Mvmt Flow	21	1	1	21	1	1

Major/Minor	Major1	Major2	Minor1		
Conflicting Flow All	0	0	22	0	45 22
Stage 1	-	-	-	-	22 -
Stage 2	-	-	-	-	23 -
Critical Hdwy	-	-	4.12	-	6.42 6.22
Critical Hdwy Stg 1	-	-	-	-	5.42 -
Critical Hdwy Stg 2	-	-	-	-	5.42 -
Follow-up Hdwy	-	-	2.218	-	3.518 3.318
Pot Cap-1 Maneuver	-	-	1593	-	965 1055
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	1000 -
Platoon blocked, %	-	-	-	-	-
Mov Cap-1 Maneuver	-	-	1593	-	964 1055
Mov Cap-2 Maneuver	-	-	-	-	964 -
Stage 1	-	-	-	-	1001 -
Stage 2	-	-	-	-	999 -

Approach	EB	WB	NB
HCM Control Delay, s	0	0.5	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1007	-	-	1593	-
HCM Lane V/C Ratio	0.003	-	-	0.001	-
HCM Control Delay (s)	8.6	-	-	7.3	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Lanes, Volumes, Timings  
600: Kilbourn Avenue & Chicago Avenue

Future (2028) Build Traffic Projections  
PM Peak Hour

						
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	465	160	115	785	175	155
Future Volume (vph)	465	160	115	785	175	155
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	16	12	12	15	11	12
Satd. Flow (prot)	1983	0	0	2012	1662	1568
Flt Permitted				0.346	0.950	
Satd. Flow (perm)	1983	0	0	700	1662	1568
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	25					170
Link Speed (mph)	30			30	30	
Link Distance (ft)	1353			1320	147	
Travel Time (s)	30.8			30.0	3.3	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	4%	7%	5%	3%	5%	3%
Shared Lane Traffic (%)						
Lane Group Flow (vph)	687	0	0	989	192	170
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	6			6	11	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	0.85	1.00	1.00	0.88	1.04	1.00
Turning Speed (mph)		9	15		15	9
Turn Type	NA		pm+pt	NA	Prot	Perm
Protected Phases	2		1	6	8	
Permitted Phases			6			2
Minimum Split (s)	39.0		23.0	62.0	23.0	39.0
Total Split (s)	39.0		23.0	62.0	23.0	39.0
Total Split (%)	45.9%		27.1%	72.9%	27.1%	45.9%
Maximum Green (s)	35.0		20.0	58.0	19.0	35.0
Yellow Time (s)	3.0		3.0	3.0	3.0	3.0
All-Red Time (s)	1.0		0.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0			0.0	0.0	0.0
Total Lost Time (s)	4.0			4.0	4.0	4.0
Lead/Lag	Lag		Lead			Lag
Lead-Lag Optimize?	Yes		Yes			Yes
Act Effect Green (s)	35.0			58.0	19.0	35.0
Actuated g/C Ratio	0.41			0.68	0.22	0.41
v/c Ratio	0.83			1.28	0.52	0.23
Control Delay	31.8			154.1	34.8	3.6
Queue Delay	0.0			0.0	0.0	0.0
Total Delay	31.8			154.1	34.8	3.6
LOS	C			F	C	A
Approach Delay	31.8			154.1	20.1	
Approach LOS	C			F	C	
Queue Length 50th (ft)	308			~482	91	0
Queue Length 95th (ft)	#505			#909	156	36

Lanes, Volumes, Timings  
 600: Kilbourn Avenue & Chicago Avenue

Future (2028) Build Traffic Projections  
 PM Peak Hour

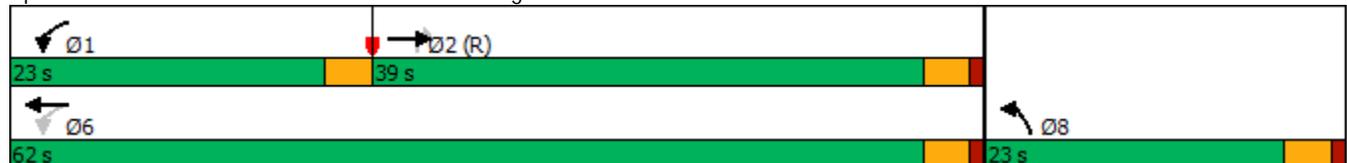


Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Internal Link Dist (ft)	1273			1240	67	
Turn Bay Length (ft)						
Base Capacity (vph)	831			770	371	745
Starvation Cap Reductn	0			0	0	0
Spillback Cap Reductn	0			0	0	0
Storage Cap Reductn	0			0	0	0
Reduced v/c Ratio	0.83			1.28	0.52	0.23

Intersection Summary

Area Type: Other  
 Cycle Length: 85  
 Actuated Cycle Length: 85  
 Offset: 75 (88%), Referenced to phase 2:EBT, Start of Green  
 Natural Cycle: 105  
 Control Type: Pretimed  
 Maximum v/c Ratio: 1.28  
 Intersection Signal Delay: 89.1  
 Intersection LOS: F  
 Intersection Capacity Utilization 108.4%  
 ICU Level of Service G  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 600: Kilbourn Avenue & Chicago Avenue



Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Future (2028) Build Traffic Projections  
PM Peak Hour



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕↕			↕↕			↕↕			↕↕	
Traffic Volume (vph)	20	240	0	0	505	70	30	145	10	170	1	75
Future Volume (vph)	20	240	0	0	505	70	30	145	10	170	1	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Satd. Flow (prot)	0	3486	0	0	3442	0	0	1827	0	0	1700	0
Flt Permitted		0.905						0.928			0.651	
Satd. Flow (perm)	0	3167	0	0	3442	0	0	1709	0	0	1145	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					30			5				43
Link Speed (mph)		30			30			30				30
Link Distance (ft)		1351			1366			1115				730
Travel Time (s)		30.7			31.0			25.3				16.6
Confl. Peds. (#/hr)							1					1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	5%	3%	2%	2%	3%	3%	2%	2%	10%	2%	2%	6%
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	271	0	0	599	0	0	192	0	0	256	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Number of Detectors	1	2			2		1	2		1	2	
Detector Template	Left	Thru			Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100			100		20	100		20	100	
Trailing Detector (ft)	0	0			0		0	0		0	0	
Detector 1 Position(ft)	0	0			0		0	0		0	0	
Detector 1 Size(ft)	20	6			6		20	6		20	6	
Detector 1 Type	Cl+Ex	Cl+Ex			Cl+Ex		Cl+Ex	Cl+Ex		Cl+Ex	Cl+Ex	
Detector 1 Channel												
Detector 1 Extend (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Queue (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 1 Delay (s)	0.0	0.0			0.0		0.0	0.0		0.0	0.0	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		Perm	NA		Perm	NA	
Protected Phases		2			6			8			4	
Permitted Phases	2						8			4		
Detector Phase	2	2			6		8	8		4	4	
Switch Phase												
Minimum Initial (s)	20.0	20.0			20.0		16.0	16.0		16.0	16.0	
Minimum Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	
Total Split (s)	33.0	33.0			33.0		32.0	32.0		32.0	32.0	

Lanes, Volumes, Timings  
700: Kilbourn Avenue & Lake Street

Future (2028) Build Traffic Projections  
PM Peak Hour

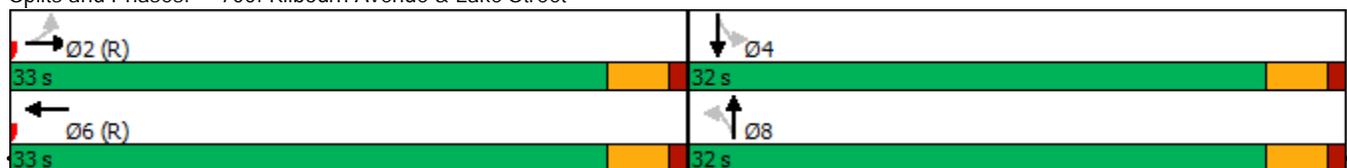


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Split (%)	50.8%	50.8%			50.8%		49.2%	49.2%		49.2%	49.2%	
Maximum Green (s)	29.0	29.0			29.0		28.0	28.0		28.0	28.0	
Yellow Time (s)	3.0	3.0			3.0		3.0	3.0		3.0	3.0	
All-Red Time (s)	1.0	1.0			1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)		0.0			0.0			0.0			0.0	
Total Lost Time (s)		4.0			4.0			4.0			4.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)	7.0	7.0			7.0		4.0	4.0		4.0	4.0	
Recall Mode	C-Min	C-Min			C-Min		None	None		None	None	
Walk Time (s)	18.0	18.0			18.0		10.0	10.0		10.0	10.0	
Flash Dont Walk (s)	11.0	11.0			11.0		18.0	18.0		18.0	18.0	
Pedestrian Calls (#/hr)	0	0			0		0	0		0	0	
Act Effct Green (s)		37.6			37.6			19.4			19.4	
Actuated g/C Ratio		0.58			0.58			0.30			0.30	
v/c Ratio		0.15			0.30			0.37			0.69	
Control Delay		7.5			7.8			18.8			26.2	
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		7.5			7.8			18.8			26.2	
LOS		A			A			B			C	
Approach Delay		7.5			7.8			18.8			26.2	
Approach LOS		A			A			B			C	
Queue Length 50th (ft)		21			48			60			77	
Queue Length 95th (ft)		51			104			90			126	
Internal Link Dist (ft)		1271			1286			1035			650	
Turn Bay Length (ft)												
Base Capacity (vph)		1831			2003			739			517	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.15			0.30			0.26			0.50	

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset:	47 (72%), Referenced to phase 2:EBTL and 6:WBT, Start of Green
Natural Cycle:	65
Control Type:	Actuated-Coordinated
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	12.9
Intersection LOS:	B
Intersection Capacity Utilization:	59.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 700: Kilbourn Avenue & Lake Street





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